
**ARCHAEOLOGICAL EXCAVATION
AND WATCHING BRIEF
ON LAND AT SOUTH END,
BOSTON,
LINCOLNSHIRE
(SEB02)**

Work Undertaken For
Reay and Co.

June 2005

Report Compiled by
Tobin Rayner MSc AIFA

National Grid Reference: TF 3305 4363
Planning Application Ref. B/99/0426/FULL and
B/99/0433/OUTL
A.P.S. Report No. 90/05

**ARCHAEOLOGICAL
PROJECT
SERVICES**



Postbook Ref:	30467
Officer Dealing:	MARIC B
Date Reply Required:	
Date Replied Via:	
CRM Transaction No.	

Lincolnshire County Council
12 APR 2010
Support Services

ELI 10404,

PRN 12644, 12645, 13817, 14522.

SLI 13016/7.

ARCHAEOLOGICAL INVESTIGATIONS ON LAND AT SOUTH END, BOSTON

CONTENTS

List of Figures

List of Plans

1. SUMMARY

2. INTRODUCTION

2.1 Description of the Site

2.2 Description of the Project

2.3 Project Objectives

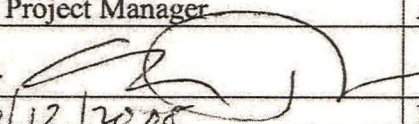
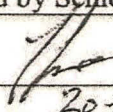
2.4 Terms of Reference

2.5 Approval of the Project

Quality Control

South End, Boston Lincolnshire (SEB02)

Project Coordinator	Gary Taylor
Project Officer and Analyst	Tobin Rayner

Checked by Project Manager	Approved by Senior Archaeologist
Gary Taylor 	 Tom Lane
Date: 20/12/2008	Date: 20-12-2009

CONTENTS

List of Figures

List of Plates

1	SUMMARY	1
2	INTRODUCTION	1
2.1	DEFINITION OF A WATCHING BRIEF	1
2.2	DEFINITION OF ARCHAEOLOGICAL EXCAVATION	1
2.3	PLANNING BACKGROUND	1
2.4	TOPOGRAPHY AND GEOLOGY	2
2.5	ARCHAEOLOGICAL BACKGROUND	2
3	AIMS	4
4	METHODS	5
4.1	WATCHING BRIEF	5
4.2	EXCAVATION	5
5	RESULTS	5
5.1	THE STRATIGRAPHIC SEQUENCE	5
5.2	DESCRIPTION	6
6	DISCUSSION	8
7	CONCLUSIONS	10
8	ACKNOWLEDGEMENTS	10
9	BIBLIOGRAPHY	10
10	ABBREVIATIONS	11

Appendices

1	Specification
2	Context Summary
3	The Finds <i>by Anne Boyle, Paul Cope-Faulkner, Rachael Hall, Hilary Healey and Gary Taylor</i>
4	The Metal Finds <i>by Gary Taylor</i>
5	The Environmental Report <i>by Val Fryer</i>
6	Imported Medieval Pottery from Site BSE01 Assessment Report <i>By Alan Viince</i>
7	The Imported Medieval Pottery from South End/Skirbeck Road, Boston (BSE01) Final Report <i>By Alan Vince</i>
8	Glossary
9	Archive

List of Figures

- Figure 1 General location plan
- Figure 2 Site location showing the medieval core and line of the Barditch and Previous Archaeological Intervention
- Figure 3 Detailed site location and archaeological setting
- Figure 4 Site location and previous archaeological intervention
- Figure 5 Site plan showing section locations
- Figure 6 Plan of Area 1 and Section 1
- Figure 7 Plan of Area 2 and Section 2
- Figure 8 Plan of Area 3 and Section 3
- Figure 9 Detailed plan of Sections (4 to 7) location, drainage run
- Figure 10 Sections 4 – 7, drainage run
- Figure 11 Section 8, surface water manhole
- Figure 12 Plan of Access Road Area

List of Plates

- Plate 1 General view of site with Hussey Tower to the rear, looking east
- Plate 2 View of section within Area 2 showing Barditch culvert, looking south
- Plate 3 Section 6 indicating deposits to the east of the Barditch, looking north
- Plate 4 View of deposits within surface water manhole Section 8, looking south
- Plate 5 Exposed area at the entrance of the Access Road, clearly showing timber features, looking south
- Plate 6 Northern view of timber features in entrance to Access Road

1. SUMMARY

Archaeological investigations were undertaken during groundworks associated with construction of a new postal sorting office at Skirbeck Road, Boston, Lincolnshire.

A programme of watching brief and excavation was required as previous archaeological investigations had revealed evidence of possible Roman saltmaking the initial construction of the Medieval and later Barditch, brick-built structures pre-dating and associated with Hussey Tower, and had demonstrated that stratified medieval deposits survived in the area.

The original cutting of the Barditch, dating from the 10th to 12th centuries, was recorded. This had survived operations to direct the ditch through a culvert in the 17th to 18th centuries. The brick-built culvert of the Barditch was also revealed. Waterlogged organic remains survived well in both the original Medieval Bardich fills and the post-medieval culvert backfills, though it is likely that the latter are mostly redeposited from the medieval levels. Other drainage or boundary ditches were recorded but did not contain artefacts and so were undated. In addition, timber structures of 19th to 20th century date, probably associated with woodworking, were also investigated.

2. INTRODUCTION

2.1 Definition of a Watching Brief

An archaeological watching brief is defined as "a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits maybe disturbed or destroyed." (IFA 1999a).

2.2 Definition of Archaeological Excavation

An archaeological excavation is defined as, "a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during the fieldwork are studied and the results of that study published in detail appropriate to the project design" (IFA 1999b).

2.3 Planning Background

Archaeological Project Services was commissioned by Reay and Company to undertake an archaeological watching brief during groundworks associated with construction of a new postal sorting office at Skirbeck Road, Boston. The site has been the subject of previous planning applications (B/99/0426/FULL and B/99/0433/OUTL).

The watching brief covered the northern part of the site (Figure 3) which, along with an area immediately to the south, had been the subject of various earlier investigations. These included desk-based assessment (Davies and Cooper 1999), archaeological evaluations (Davis and Symonds 1988 & Rayner 2001), and an intensive watching brief during the excavation of geotechnical pits and boreholes (Rayner 2002).

Investigations revealed that important archaeological remains survive on site. Although these will generally be preserved *in situ* by design methods, an archaeological watching brief was required during development groundworks that would cause unavoidable disturbance to archaeological remains or which may impact archaeological deposits. The archaeological investigations were carried out between the 19th August and 14th October 2004 in accordance with a

specification prepared by Archaeological Project Services (Appendix 1) and approved by the Boston Planning Archaeologist.

2.4 Topography and Geology

Boston lies 45km southeast of Lincoln and 7km from the northwestern coast of The Wash in the fenland of south Lincolnshire (Figure 1). The site is in the south of the town on the east bank of the Haven adjacent to the Hussey Tower at the junction of South End and Skirbeck Road (Figure 2). The site is located at national grid reference TF 3305 4363.

The site lies at approximately 5m OD on a slight slope down to the east, away from the river. As an urban area soils have not been mapped but are likely to be Wisbech Series typically coarse silty calcareous soil, overlying marine alluvium (Hodge *et al.* 1984, 361). Beneath these soils are deposits of marine alluvium overlying glacial drift that was deposited in a geological basin between the Lincolnshire Wolds and the East Anglian Heights (Harden 1978, 5). These glacial deposits in turn overlie a solid geology of Jurassic Ampthill Clay (BGS 1995).

2.5 Archaeological Background

(Figures 2 - 4)

Little is currently known about Boston in the Prehistoric and Roman periods. Although a Neolithic stone axe has been recorded to the southwest of the development site, evidence of this period is scarce in the vicinity of Boston. The only excavation of stratified Romano-British deposits in the town has been at Boston Grammar School, immediately to the north of the site (Figure 3:5), where occupation remains of the period were recorded 1.4m below the present ground surface (Palmer-Brown 1996, 5). Coins and pottery (Figure 3:2) dating to the Roman period have also been recorded to the east of the development site. A square vault (Figure 3:8) enclosed with hewn

stones and containing an urn, was recorded by Stukeley (Thompson 1856, 16).

The Saxon period is represented locally by pottery and two sunken features recorded during an archaeological excavation 1km east of the site (Palmer-Brown 1995).

The apparent lack of exploitation during these early periods may be due to burial of the evidence by alluvium rather than genuine absence.

Boston is not mentioned in the Domesday Survey of c.1086. However, the survey recorded two churches and two fisheries in Skirbeck, a parish lying to the southeast of Boston (Foster and Longley 1976, 69). One of these churches, St. Botolph's, was granted to St. Mary's Abbey, York in 1089. In 1130, Boston received its first mention when it was referred to as 'Botulvestan' (Dover 1972, 1).

By the late 12th century the town had already established itself as a major trading centre, partly due to its situation on the estuary of the River Witham.

The line of the Barditch (Figures 2 and 3:11) runs north-south through the proposed development site. The ditch was constructed to form the eastern boundary of Boston during the medieval period. The first reference to the Barditch was in c. 1160 (Owen 1984, 45). The length of the Barditch was used as an open sewer and does not appear to have been intended as a defensive structure. In the post-medieval period the Barditch was gradually enclosed in a brick culvert.

The extent and importance of commerce in the year 1205 is manifested by a tax levied on the goods of merchants at the ports of England, Boston paid £780 in comparison to London's £836 (Thompson 1856, 37).

Information on the development of the town, particularly that relating to the emergence of streets, suggests that the location of the proposed development was adjacent to the original town of Boston,

beyond the Barditch (Harden 1978, 19; Figure 2). Historical information suggests the proximity of the sea, and the influences of tides and floods, would have been significant during the occupation of Boston at this time. Indeed, floods are documented for the years of 1236, 1254, 1257 and 1286 (Thompson 1856, 36). During the early medieval period the town appears to have been surrounded by a wall, for in 1285, a grant was made by King Edward I to the bailiffs and burgesses for a toll in aid of repair of the town walls (*ibid.* 43).

The site of a Franciscan Friary (Figure 3), which was in the custody of the monastery at York, is believed to be situated immediately north of the proposed development site. In 1545 the friary site was purchased by the town and by 1652 the friary had been demolished (*ibid.*). Archaeological investigations north of the proposed development site revealed a total of 15 inhumation burials and 13th - 14th century features. The cemetery has been interpreted as being part of the Franciscan Friary, but located outside the friary precinct (Palmer-Brown 1996b, Figures 3:4 & Figure 3:12).

An Augustinian Friary (Figure 3:3) is believed to have stood to the south of the proposed development site (Thompson 1856, 280). The friary is believed to have been founded by one of the Tilney family, early in the reign of Edward II, or possibly by the King himself. In 1307 a license was granted to St. Nicholas atte Gate to give lands in St. Botolph to the friars of St. Augustine.

It is likely that the Augustinian friary was facing problems prior to the dissolution. Historical documents record that Commissioners appointed to examine libraries of the religious houses, could not visit the Augustinian Friary due to the presence of plague (Thompson 1856, 111).

Hussey Tower (Figure 3:1, Plate 1), a manor house and Scheduled Ancient Monument (County Number 49), stands

southeast of the proposed development site. Dating from the mid to late 15th century, the tower was constructed by Richard Benyngton, a prominent Lincolnshire man at this time (Smith 1979, 34) and named after its 16th century owner Lord Hussey, an influential local figure. Hussey Tower is unlikely to have stood alone and various documents refer to a brewhouse, mill house and stable which have since been demolished (*ibid.*). It is known that Hussey Hall was occupied by a sailmaker from 1773 until 1780, whilst an adjacent building was used as a sacking factory until about 1800 (Wright 1986, 88).

A petition presented to Queen Elizabeth I. in 1594 stated that the town of Boston was impoverished through a decline of trade, and 'great inundations' (flooding) (Wheeler 1896, 344). At a general Court of Sewers, held at Boston in 1734, a petition of landowners and tenants refers to 'Maud Foster's Gowt' (located to the east of the proposed development) as a drain that is in a bad state of repair. Due to the poor state of the drain, the document claims that the surrounding lands were 'constantly flooded'. Land adjacent to the River Witham at this time was said to be in a deplorable condition, 'by reason of violent and excessive inundations of fresh waters' (*ibid.*, 208). Evidence such as this suggests that the inhabitants of Boston must have perpetually struggled against the effects of the local environment.

The first State approved improvements to the course of the River Witham in Boston are dated to 1762 through an Act of Parliament (Padley 1882). Nonetheless, problems continued with the condition of the River Witham during 1800, when a document states that the navigation of this river course was very much impeded due to continuous silting (Wheeler 1896, 349).

Other archaeological investigations have revealed other medieval features and several skeletons were recorded in Rowley Road (Figure 3)

A 16th - 17th century pottery kiln (Figure 3:6) was found during excavations of foundation trenches for the Grammar School gymnasium.

Hall's Plan of the Borough and Port of Boston made in 1741, shows the area with orchards and pasture to the north and gardens to the south, whilst buildings are recorded fronting South End and Skirbeck Road.

A century later the area was still largely undeveloped, the land between the eastern boundary of the site and the Barditch was divided east-west with the southern area being woodland and the northern part being an undeveloped parcel of land. Fronting South End the site was being utilised as a Raft Yard.

By 1887 the Barditch was filled in or covered over, whilst the west of the site was given over to timber yards, the northeast to a pond and the southeast to an orchard.

An evaluation including the area of the present investigation site was undertaken in 1988 by the Trust for Lincolnshire Archaeology (Davies and Symonds, 1988). This investigation found evidence of a stone surface located close to the base of Hussey Tower, a large ditch or tidal creek containing 13th and 14th century pottery, a length of the Barditch, enclosed in a brick culvert, and demonstrated that stratified medieval deposits survive at South End.

The 1988 evaluation report also briefly mentions a small excavation on the same site in the 1960s which revealed a large pit or ditch containing 14th century pottery and the discovery of up to three human burials.

A series of geotechnical pits have also been excavated adjacent to the present investigation site (Rayner 2002). These revealed the potential for the recovery of waterlogged remains dating to the medieval period.

A recent archaeological evaluation of the investigation area, along with the area immediately adjacent to it at the south, recovered small amounts of Roman pottery and possible briquetage (salt-making material). However, no features of the period were clearly identified. The area appears to have remained open marshland until the 12th - 13th century when there was evidence of wooden structures being erected in the area. Although episodes of flooding were recorded throughout the medieval period, there was evidence of gradually increasing occupation and use of the area. A substantial limestone wall was identified at the north of the site and may be part of the adjacent Franciscan Friary. By the late 14th - 15th century brick structures were built adjacent to Hussey Tower. Several of the buildings appear to pre-date the tower and large quantities of imported, particularly German, pottery and decorated glass suggest that the occupants were of high status. However, the site appears to have been largely abandoned in the post-medieval period (Rayner 2001).

3. AIMS

The aim of the watching brief, as detailed in the specification (Appendix 1), was to ensure that any archaeological features exposed during the groundworks should be recorded and, if present, to determine their date, function and origin.

The aim of the excavation was to preserve by record all archaeological remains that would be unavoidably affected by development works at this location.

The objectives of the work were to fully investigate and establish the type, chronology, density, spatial arrangement and extent of archaeological remains revealed by the development works.

4. METHODS

4.1 Watching Brief

The watching brief was undertaken during the ground works phase of development and included the archaeological monitoring of all phases of soil movement.

Stripped areas and trench sections were observed regularly to identify and record archaeological features that were exposed and to record changes in the geological conditions. The section drawings of the trenches were recorded at a scale of 1:10. Written descriptions detailing the nature of the deposits, features and fills encountered were compiled on Archaeological Project Services pro-forma record sheets.

4.2 Excavation

The excavation area was located over the position of the Barditch where it is crossed by the drainage trench, in the area shown on the 'surface water and foul drainage' plan by Calvert Kemp Partnership. The excavation area was 0.5m deeper than the drainage trench, and the minimum appropriate width to permit the adequate, safe investigation of archaeological deposits to the specified depth. The length of the excavation area was 6-7m, being slightly greater than the width of the Barditch established by previous investigation (Rayner, 2001).

Removal of modern overburden was undertaken by mechanical excavator using toothed and toothless ditching buckets supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits was assessed by hand excavation before any further mechanical excavation was required. Thereafter, the trench was cleaned by hand to enable the identification and analysis of the archaeological features exposed.

All deposits and features were fully excavated and recorded to a depth of 0.5m below the base of the drain trench.

Samples were taken from all waterlogged feature fills and retained from approximately 50% of postholes.

The archaeological features encountered were recorded on Archaeological Project Services' pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn. Plans of features were drawn at a scale of 1:20 and sections at a scale of 1:10.

Throughout the duration of the investigation a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides was compiled.

A field survey of the excavation area was completed using a Geodolite Total Station in conjunction with a Psion Datalogger.

Following the archaeological investigation, all records were checked and ordered to ensure that they constituted a complete Level II archive and a stratigraphic matrix of all identified deposits was produced.

5. RESULTS

(Figures 5 – 12), (Plates 1 – 6)

5.1 The Stratigraphic Sequence

Finds recovered from the deposits identified during the investigations were examined and a date assigned where possible (Appendices 3 - 5). Records of the deposits encountered were also examined. A list of all contexts and interpretations appears as Appendix 2. Phasing was based on the nature of the deposits and recognizable relationships between them, supplemented by artefact dating where relevant. Including natural deposits, five archaeological phases were identified:

Phase 1	Natural deposits
Phase 2	Undated deposits
Phase 3	10 th – 12 th century deposits
Phase 4	17 th – 18 th century deposits
Phase 5	Modern deposits

Context numbers appear in brackets, and these refer to the individual cut and deposit descriptions recorded during excavation.

5.2 Description

Area 1 (Figure 6)

Phase 5 Modern deposits:

The earliest feature recorded within the area was a brick culvert (001) that represents the Barditch. A 0.1m+ thick mid yellowish brown clayey silt flood layer (004) was located adjacent to (001) and in turn was sealed by a dark brown sandy silt subsoil with frequent building debris and occasional shell (003). A 0.15m thick topsoil comprising of dark brown sandy silt with frequent building debris sealed the area.

Area 2 (Figure 7, Plate 2)

Phase 5 Modern deposits:

The earliest feature recorded within the area was a brick culvert (001) that represents the Barditch. Overlying (001) was a dark brownish black clayey silt with frequent building debris and concrete dumped layer (007) containing a ceramic land drain (008) feeding in to the Barditch. Sealing (007) was a compact mid whitish yellow crushed limestone hardcore (006) covered by a dark grey tarmac (005) that formed a road access.

Area 3 (Figure 8)

Phase 5 Modern deposits:

A 0.8m+ thick dark brown silt with occasional brick rubble and concrete (014) was recorded at the base of the area. Cutting this dumped layer was a c.3.8m

wide construction trench (013/016). Aligned N-S with steep sides this linear contained the brick culvert of the Barditch (001) and was backfilled with a mid greyish brown silt with frequent building debris (012/015). Sealing the underlying deposits was a sequence of surfaces (011, 010 and 009) comprising a dark greyish blue stone, a mid yellowish brown concrete with gravel inclusions and a mid grey tarmac respectively.

Access Road (Figure 12, Plates 5 & 6)

Phase 2 Undated deposits:

Located in the southwest corner of the site, cutting a mid reddish brown silt flood layer (020), was a NW/SE linear with straight sides [018]. Measuring at least 4m x 1.7m this possible pit contained a black silt with frequent organics (019).

Phase 5 Modern deposits:

Situated at the entrance to the access road fronting on to South End were several features and deposits. The earliest deposits recorded were: a light brown silty sand with occasional charcoal, tile and shell (091/093) and a mid grey silty sand with frequent charcoal, tile and stones (111) which were both interpreted as episodes of dumping. Post-dating (093) along the eastern edge of the area was a single course of mortar-bonded rounded bricks (114). Aligned E-W and measuring 0.44m+ long x 0.26m wide, this feature appears to represent the western end of a probable wall. Two similar features (112) and (113) cutting the dumped layer (111) were recorded to the north of (114) and were also interpreted as walls.

Overlying (093) and (091) were two further dumped layers comprising (092), a mid grey sandy clay with frequent charcoal, tile and shell and, to the north of the area, (116) a mid brown silty sand with occasional sandstone and tile. Covering (116), to the east, was a mid grey silty sand dumped layer containing redeposited 17th century pottery and frequent charcoal,

tile and occasional shell and pebbles (094).

Truncating (116) to the west was a N-S linear that measured 7.8m long x 1.9m wide [106] which was interpreted as a floor cut. Filling [106] was a dark grey sandy silt with frequent tile and occasional shell and pebbles (099) that in turn was sealed by NW-SE aligned wooden planks that measured up to 5m long x 0.1m wide (098). Cutting the timbers at the southern end was a 2.2m long x 1.56m wide sub-rectangular pit [110] that contained four mortar-bonded brick plinths (101, 102, 103 and 104) located in each corner. Sawdust was recorded within the feature and a timber cover (100) comprising NE-SW aligned wooden planks measuring 1.53m long x 0.18m wide capped the pit.

Located in the eastern half of the area and cutting deposit (094) was a second floor cut [107]. Aligned N-S and measuring 7.9m long x 2m wide [107] was filled by a dark grey sandy silt with occasional tile and charcoal (109) and a dark grey silty clay (096) and sealed by wooden planks (095, 097 and 108) that form a surface.

A large quantity of ironwork associated with woodworking and a number of 19th to 20th century glass bottles were recovered as unstratified artefacts (115) associated with this surface.

Drainage Run (Figures 9-10, Plate 3)

Phase 3 10th – 12th century deposits:

The earliest deposits recorded on the west side of the section were: brownish grey clayey silts with occasional charcoal (041, 042 and 043); a black silt with frequent organics and occasional shell (040); a mid greyish brown sandy silt with occasional charcoal and shell (039); and a mid greyish brown sandy silt with occasional charcoal and shell (035). These were interpreted as fills of an earlier cut of the Barditch. Pottery of the 10th to 12th century was recovered from (042). Analysis of environmental samples from fills of the Barditch indicates that it was not used for

the disposal of refuse, although domestic activity may have been located in the near vicinity (Appendix 5). This analysis also revealed that the base of the ditch would have been damp or partly water filled, well-maintained, and flanked by areas of cultivated ground and meadow or grassland, although some of the remains might be waterborne from farther afield.

Phase 4 17th – 18th century deposits:

Cutting deposit (035) was a N-S linear with concave side that measured 0.54+m wide x 0.44 deep [045]. This cut of the Barditch was filled by a black silt with occasional gravel and shell flood deposit (044) that yielded 17th to 18th century pottery and redeposited Medieval tile, and a sequence of dumped layers (024 – 034) ranging from light yellowish grey mortar to mid greyish brown sandy silty clays to dark brownish grey clayey sandy silt. The assemblage retrieved from environmental sampling of this deposit revealed a very similar assemblage to those of the earlier, Medieval, fills of the ditch this probably indicating that this material is residual, deriving from the earlier fills (Appendix 5). Sealing these deposits was a greyish brown sandy silt with frequent brick and tile (CBM) and occasional gravel subsoil (023) and a dark greyish brown sandy silt topsoil (022) with occasional shell and ceramic building material.

On the east side of the section the earliest deposits were a laminated mid dark grey clayey silt with occasional roots (086) sealed by a laminated mid greyish brown sandy silt with rare ceramic building material and mortar (060). Cutting (060) was a 2m+ wide x 1m+ deep N-S linear with a stepped concave side [085] that represents an earlier cut of the Barditch. Filling this feature was a dark brownish grey silty clay with frequent charcoal (066), a flood deposit (059) of laminated mid greyish brown sandy silt with rare ceramic building material and mortar, and a sequence of generally brownish grey silty clay dumped layers with ceramic building material, shell, charcoal and

gravel inclusions (053 – 056, 058, 061 and 062). A post or stake hole [052] with convex sides and measuring 0.1m wide was recorded cutting (058) and contained a dark brownish grey sandy silty clay with occasional ceramic building material and gravel (051). An animal burrow [089] was also recorded cutting (058) as well as (053). Cutting dumped layer (055) was a pit or post hole [050] measuring 0.4m wide x 0.32m deep with a concave western side and convex eastern side and filled by a dark brownish grey silty clay with occasional charcoal and rare gravel (049).

Phase 5 Modern deposits:

Cutting (022) on the western side of the section was a 1.6m+ wide x 0.88m deep N-S linear with vertical sides [046] that represent the modern cut for the brick culvert of the Barditch (090). Filling the ditch was a dark greyish brown sandy silty clay with occasional gravel and charcoal (037) with a dark greyish brown sandy silty clay with occasional gravel and charcoal lenses (038) and a dark brown sandy silty clay with frequent ceramic building material and mortar and occasional coal and gravel (036).

Cutting (055) on the eastern side of the section was the eastern side of the Barditch culvert [063/088]. Measuring at least 1.2m wide x 0.9m deep, the ditch was filled by a light grey mortar with occasional CBM (087) and a white mortar (064). A brick wall (065) was also recorded adjacent to the culvert (090) and has been interpreted as a retaining structure.

Overlying all the deposits and features on the eastern side of the Barditch culvert was dumped layer (048), a dark greyish brown sandy silt with occasional charcoal and mortar and rare shell and roots. Sealing the whole area was a 0.56m modern overburden (021/047).

Surface Water Manhole (Figure 11, Plate 4)

Phase 1 Natural deposits:

The earliest deposit recorded within the manhole was a mid greyish brown clayey silt (083) that has been interpreted as natural.

Phase 2 Undated deposits:

Natural (083) was truncated by a 0.7m+ wide N-S linear with shallow convex sides [082]. Filling this boundary ditch was a sequence of generally brownish grey silt and silty clay deposits with occasional charcoal, shell and pebbles (077 – 081). Cutting (077) was a 0.2m wide x 0.2m deep N-S linear with concave sides and base [076]. This appears to be a re-cut of boundary ditch [082] and was filled by two greyish brown silty clay deposits (074 and 075). Ditch [076] also appears to be re-cut by [073] that measured at least 0.5m+ wide x 0.55m deep and contained a mid greyish brown clayey silt (072). Sealing this feature were two dumped deposits: a mid greyish brown clayey silt (071) and a dark greyish brown sandy clayey silt with occasional pebbles, charcoal, shell and ceramic building material (070). A third re-cut [069] of boundary ditch [082] measured 0.25m deep and contained a light greyish brown silt (068).

Phase 5 Modern deposits:

All the underlying features and deposits were sealed by black tarmac and gravel (067) followed by a 0.4m thick light yellow crushed limestone (084).

6. DISCUSSION

An archaeological watching brief on land at Skirbeck Road, Boston, Lincolnshire has revealed a sequence of natural and archaeological deposits adding to the corpus of evidence gained from previous studies.

Phase 1 Natural deposits:

The earliest deposit recorded at the base of the surface water manhole was a mid greyish brown clayey silt. This layer is likely to have been laid down during episodes of flooding of the adjacent River Witham.

Phase 2 Undated deposits:

Undated evidence of an earlier cut to the Barditch was recorded within the drainage run trench. It is known that the Barditch was constructed by at least the 12th century and therefore this undated cut could be associated with the re-cutting of the ditch at any time thereafter. An undated ditch and associated re-cuts was also recorded during the investigations to the east of the Barditch within the surface water manhole. Previous investigations have not revealed these features, indicating that the linear does not extend any great distance across the site and it may therefore be suggested that they represent short boundary ditches or limited gully runs.

Phase 3 10th – 12th century deposits:

The earliest deposits recorded in Area 3 contained Stamford ware pottery sherds that have been dated to the 10th – 12th century. Interpreted as the fill of the original Barditch, this date would correspond with the first references to the ditch in c.1160 (Owen 1984, 45). The Barditch is believed to have functioned as a boundary between Boston and Skirbeck (Owen 1984) and/or a sewer (Harden 1978). However, the recovery of 10th – 12th century deposits within the ditch suggests, to some extent, that this part of the ditch was not being fully maintained by this period. The evidence for occupation of the site at this period is not extensive, which perhaps suggests that the area was peripheral to the main settlement zone of Boston. This may have led to this part of the Barditch being neglected, or used for waste dumping, rather than being maintained as a drain and boundary.

The pottery recovered from these deposits indicates that there was a trade network overland with South Lincolnshire and Stamford.

Phase 4 17th – 18th century deposits:

Boston declined in the Post-medieval period, as evidenced by the decay of the port and the reduction of shipping volume. However, some activity was recorded in the development area during this period with the re-cutting of the Barditch and the cutting of post or stake holes and pits.

Phase 5 Modern deposits:

The features and deposits recorded within the Access Road appear to be associated with the timber trade and probably represent the remains of a storage building or workshop. A large quantity of iron objects was recovered from the area. Many of these are nails or spikes, and one still has wood attached. Additionally, there are various forms of file, some punches or needle-pointed rods, and possible machinery bits. While some of the items, nails, staples, spikes, are from joining timber together, others seem to be from industrial activity, perhaps working of wood or other materials. Timber was one of the principal imports into Boston by the 17th century (Bagley 1986, 80) and the development site is believed to have been used as a timber yard as early as the 19th century. Evidence for industrial use was apparent within the trenches. Ground raising appears to have occurred in several of the areas and metal sheeting and timber was recorded within Area 1, possibly associated with machinery required in the timber trade.

The Barditch was enclosed in a brick culvert during this period and a brick retaining wall was constructed on the east side. The Ordnance Survey map of 1887 shows the Barditch as being covered or filled in.

Dumped deposits and limestone hardcore

were recorded throughout the development area and represent the levelling of the site during modern times. Topsoil, concrete and tarmac represented the modern ground surface across the development site.

7. CONCLUSIONS

An archaeological excavation and watching brief on land at Skirbeck Road, Boston was undertaken as the site lay within an area of known archaeological activity dating from the Roman period to the present. Previous investigations of the area have revealed possible evidence of salting, the initial construction of the Barditch, brick structures pre-dating and associated with the Medieval Hussey Tower, and demonstrated that stratified medieval deposits survive in the area.

The present investigations examined several sections of the Barditch. These confirmed that parts of the original cutting of the ditch and its early fills dating to the 10th to 12th centuries still survive even though the ditch was dug out and directed through a brick culvert in the 17th to 18th centuries. Other possible boundary or drainage ditches were also identified but were undated. In addition, remains of plank-floored structures, probably part of a timber yard and of late post-medieval date, were also recorded.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Mark Dean of Reay and Co for commissioning the fieldwork and post-excavation. The archaeological project was coordinated by Gary Taylor and this report was edited by Gary Taylor and Tom Lane. Dave Start kindly permitted examination of the relevant parish files.

9. BIBLIOGRAPHY

Bagley, G.S., 1986, *Boston - Its Story and People*

BGS, 1995, *Boston, Solid and Drift edition*, 1:50,000 map sheet 128

Davies G. and Cooper T., 1999, *Archaeological Desk-Based Assessment of South End, Boston, Lincolnshire*, Unpublished Archaeological Research and Consultancy at the University of Sheffield Research School of Archaeology Report No. 505

Davies, G. and Symonds, J., 1988, *An Archaeological Assessment, South End, Boston*, unpublished report by The Trust for Lincolnshire Archaeology

Dover, P., 1972, *The Early Medieval History of Boston, AD 1086-1400*, History of Boston Series No. 2 (2nd edition)

Foster, C.W. and Longley, T. (eds), 1976, *The Lincolnshire Domesday and the Lindsey Survey*, The Lincoln Record Society 19

Harden, G., 1978, *Medieval Boston and its Archaeological Implications*, South Lincolnshire Archaeological Unit

Hodge, C.A.H., Burton, R.G.O., Corbett, W.M., Evans, R. and Seale, R.S., 1984, *Soils and their Use in Eastern England*, Soil Survey of England and Wales Bulletin No. 13

IFA, 1999a, *Standard and Guidance for an Archaeological Watching Brief*

IFA, 1999b, *Standard and Guidance for an Archaeological Excavation*

Owen, D.M., 1984, 'The Beginnings of the Port of Boston', N. Field, A. White (eds), *A Prospect of Lincolnshire*

Padley, J.S., 1906 *The Victoria History of the County of Lincoln II* (1988 reprint)

Palmer-Brown, C., 1995, *Archaeological Excavation and Watching Brief at St Nicholas School, Church Road Boston, Lincolnshire*, unpublished Pre-Construct Archaeology (Lincoln) report

Palmer-Brown, C., 1996, *Boston Grammar School Archaeological Evaluation Report*, unpublished Pre-Construct Archaeology (Lincoln) report

Rayner, T., 2001, *Archaeological Evaluation of Land At South End, Skirbeck Road, Boston, Lincolnshire*, unpublished APS report No. **153/01**

Rayner, T., 2002, *Intensive archaeological watching brief on land at South End, Skirbeck Road, Boston, Lincolnshire (BSR02)*, unpublished APS report No. **33/02**

Smith, T.P., 1979, Hussey tower, Boston: A Late medieval Tower House of Brick, *Lincolnshire History and Archaeology* Vol. 14

Thompson, P., 1856, *The History and Antiquities of Boston and the Hundred of Skirbeck*, (2nd ed.)

Wheeler, W.H., 1896, *History of the Fens* (2nd ed.)

Williams, J. and Corfield, M., in press, *Construction impacts on in situ preservation of archaeological sites and artefacts*

Wright, N.R., 1986, *The Book of Boston*

10. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey

IFA Institute of Field Archaeologists

OD Ordnance Datum

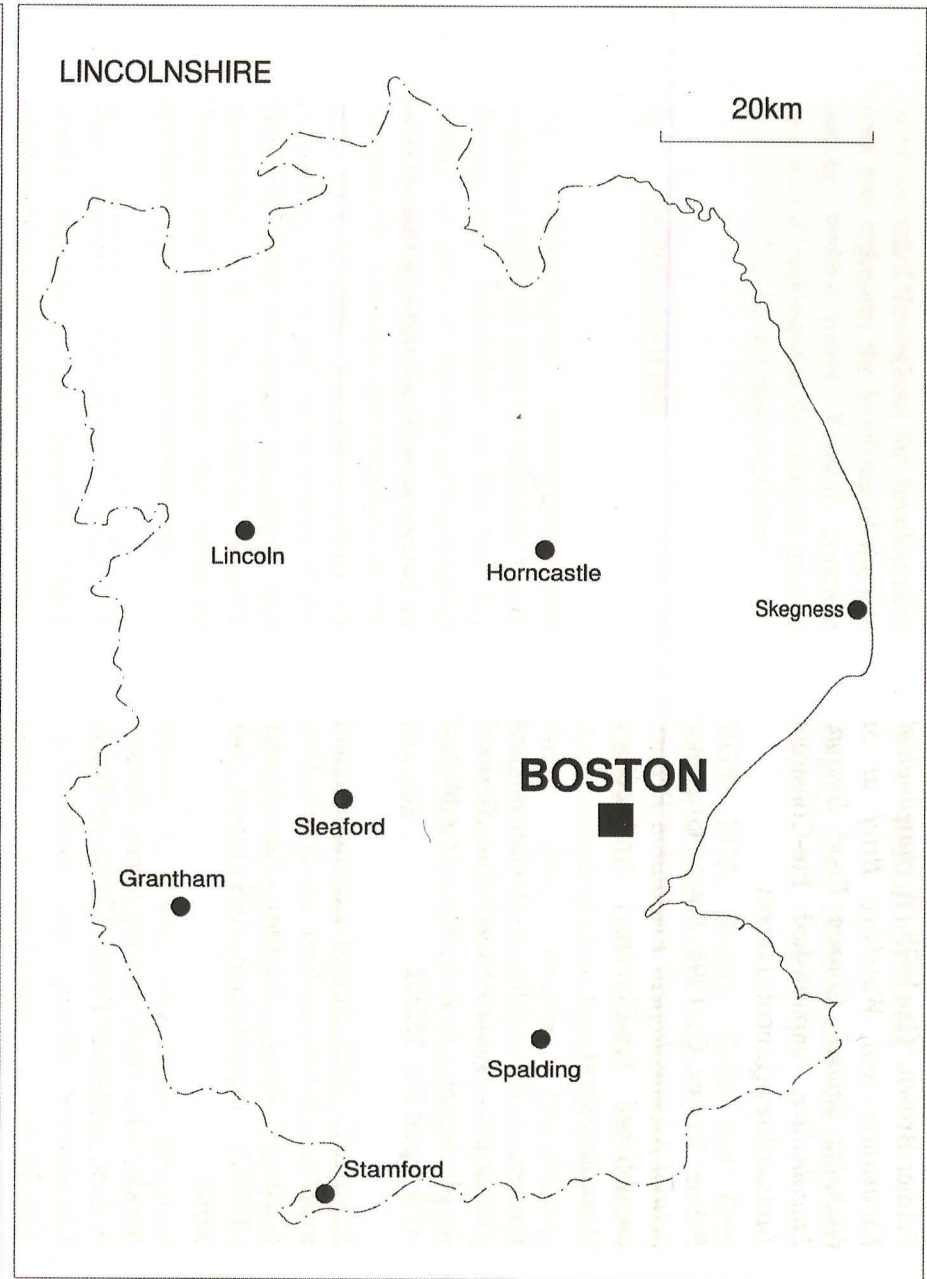


Figure 1: General Location Plan



Reproduced from the Ordnance Survey 1:10000 map with the permission of The Controller of Her Majesty's Stationery Office, (C) Crown copyright HTL LTD Licence No AL5041A0001



0 0.50 Km
1:10733

Figure 2: Site location showing the medieval core and line of the Barditch

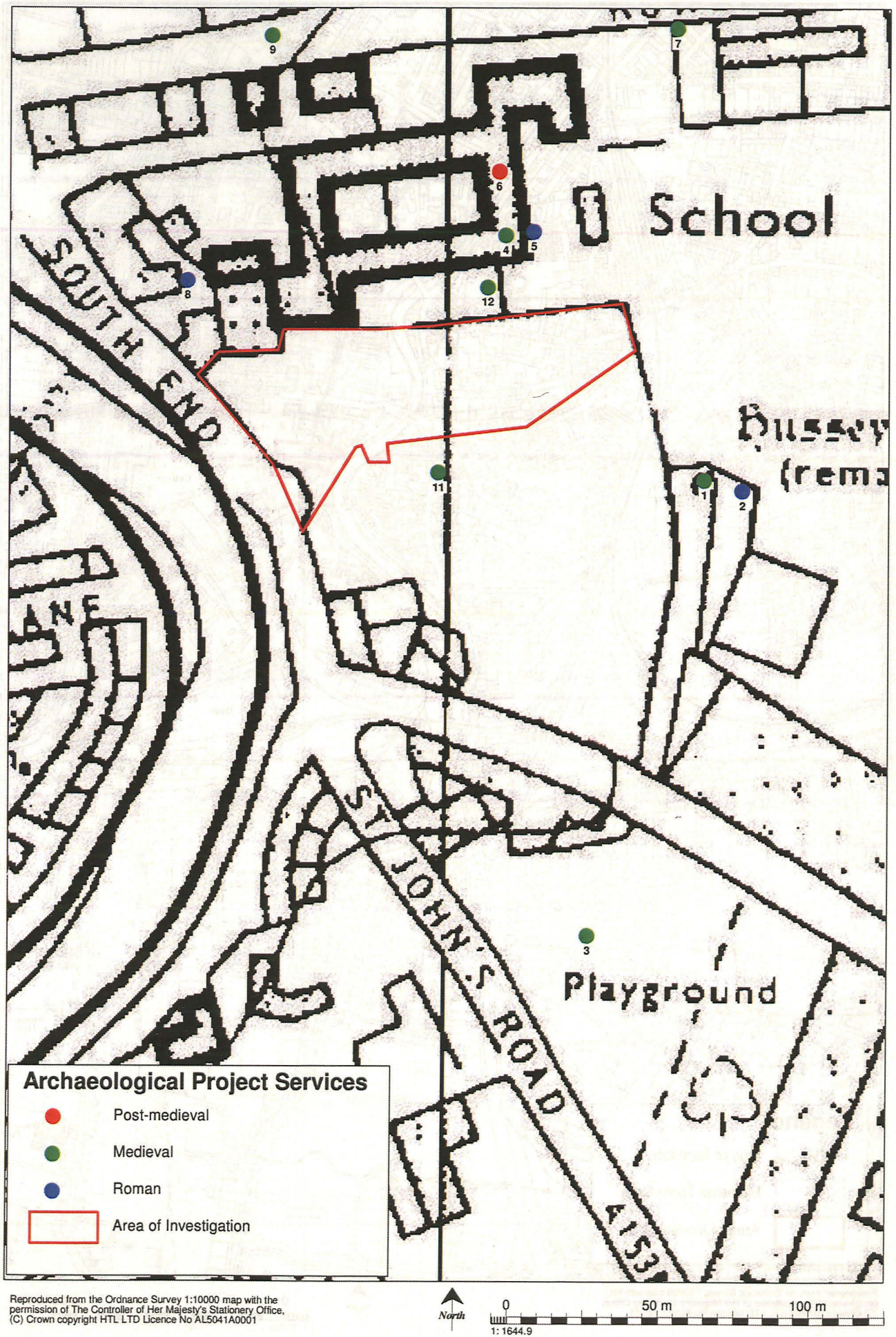


Figure 3: Detailed site location and archaeological setting

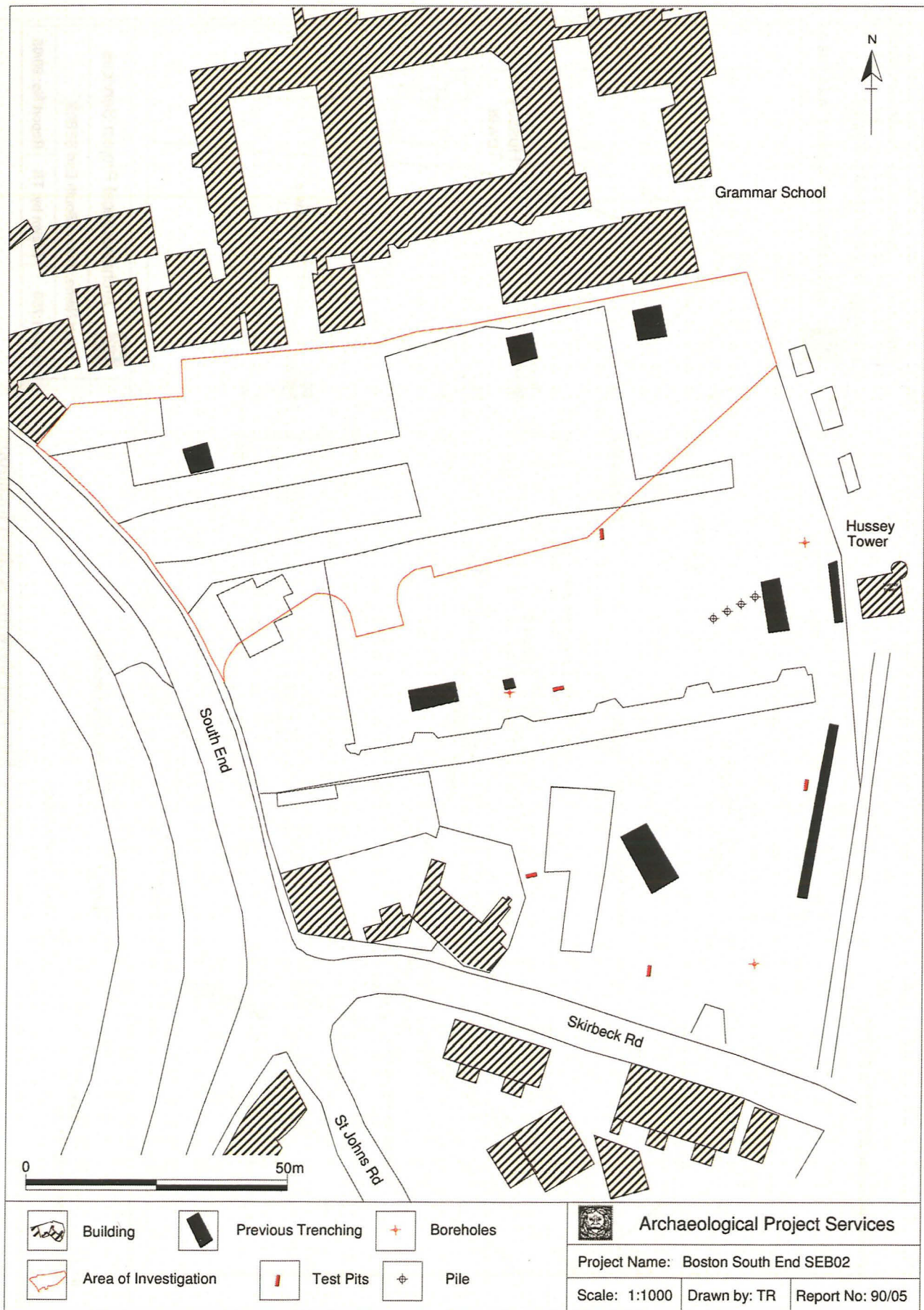


Figure 4: Site Location and Previous Archaeological Intervention

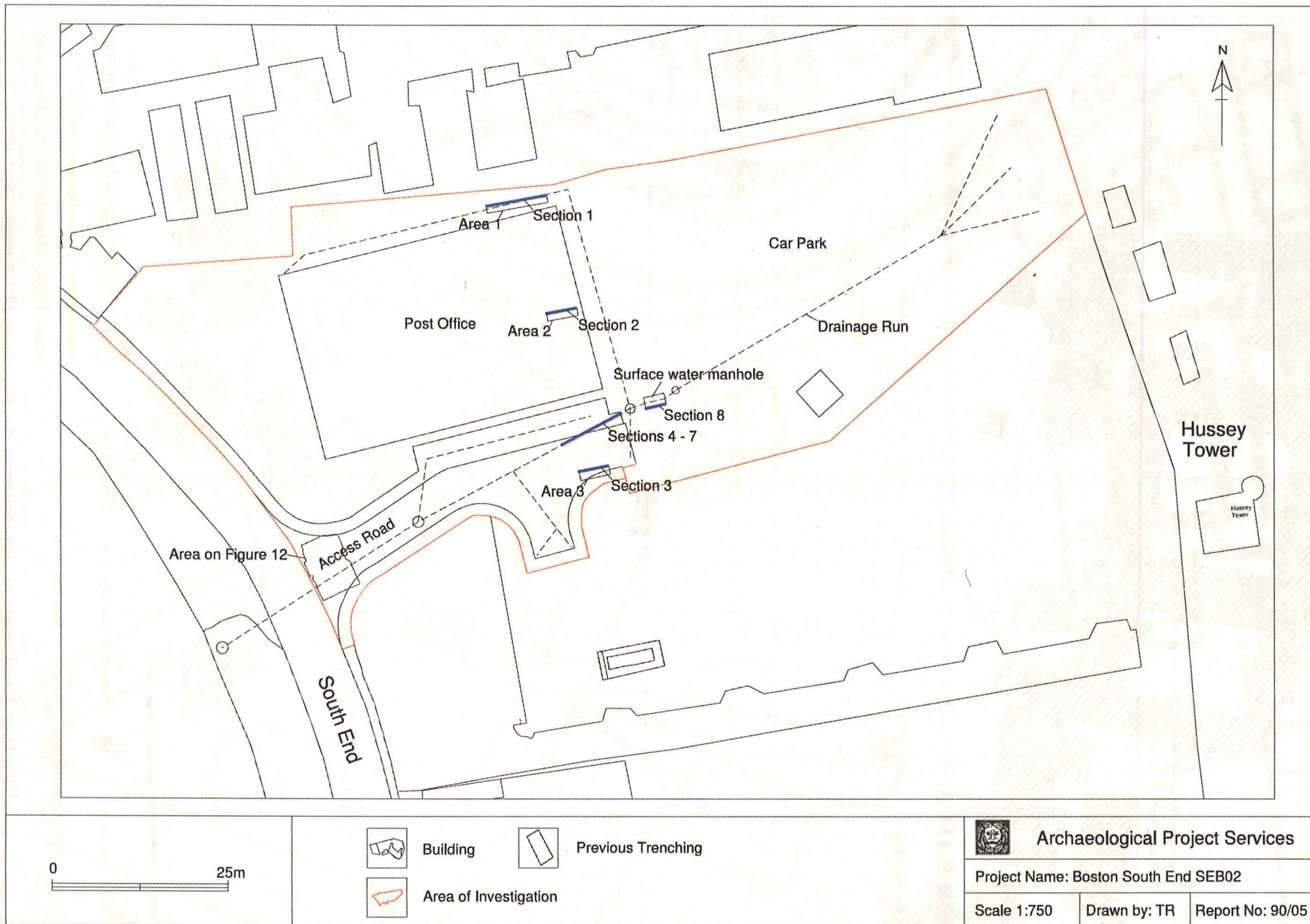
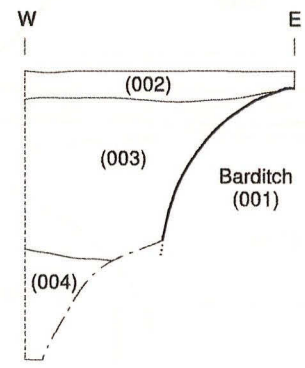


Figure 5: Site plan showing section locations




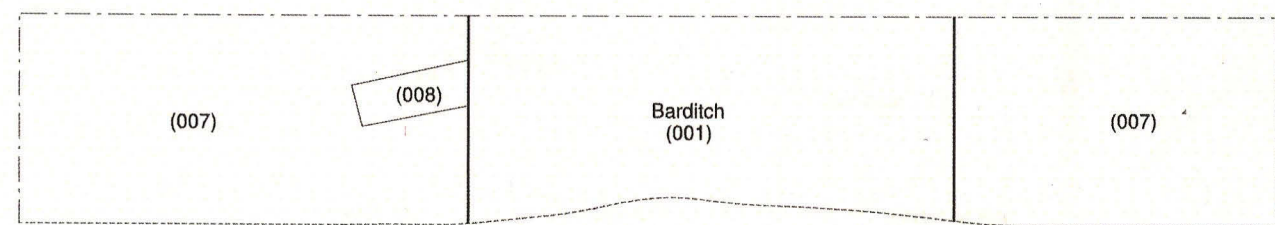
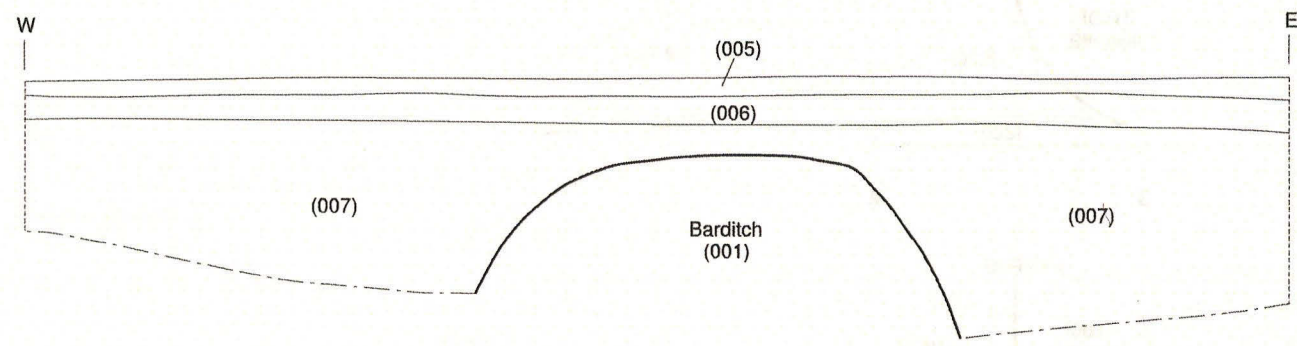
	Archaeological Project Services	
Project Name: Boston South End SEB02		
Scale 1:40	Drawn by: TR	Report No: 90/05

Figure 6: Plan of Area 1 and Section 1



Section 2




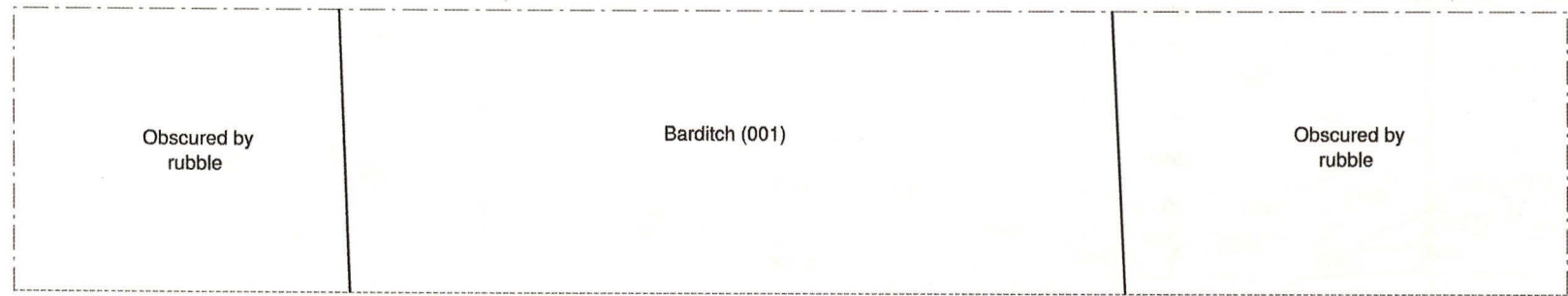
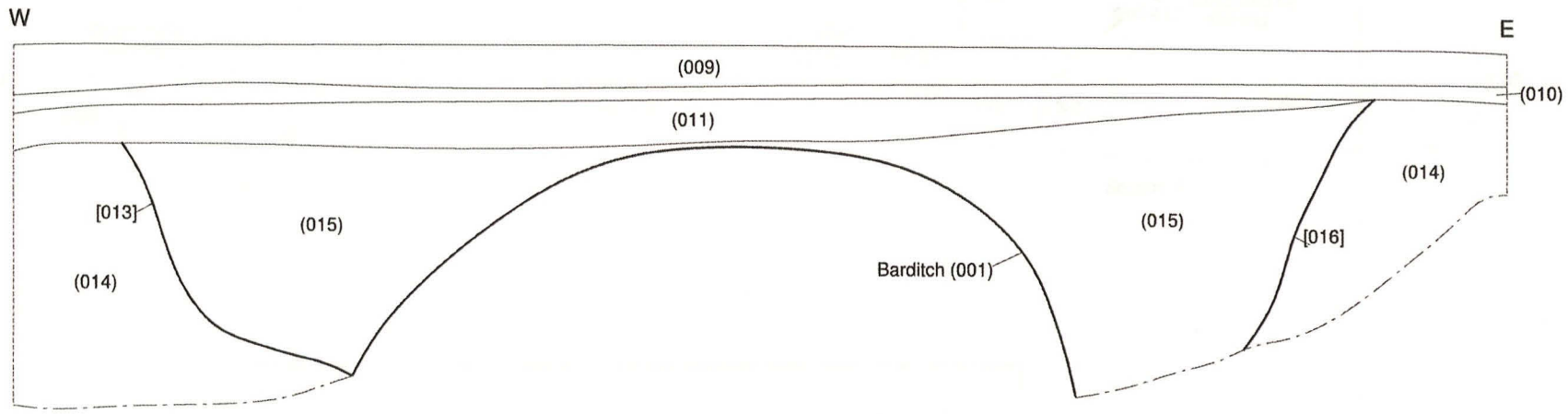
	Archaeological Project Services	
Project Name: Boston South End SEB02		
Scale 1:25	Drawn by: TR	Report No: 90/05

Figure 7: Plan of Area 2 and Section 2



Section 3




	Archaeological Project Services	
Project Name: Boston South End SEB02		
Scale 1:20	Drawn by: TR	Report No: 90/05

Figure 8: Plan of Area 3 and Section 3

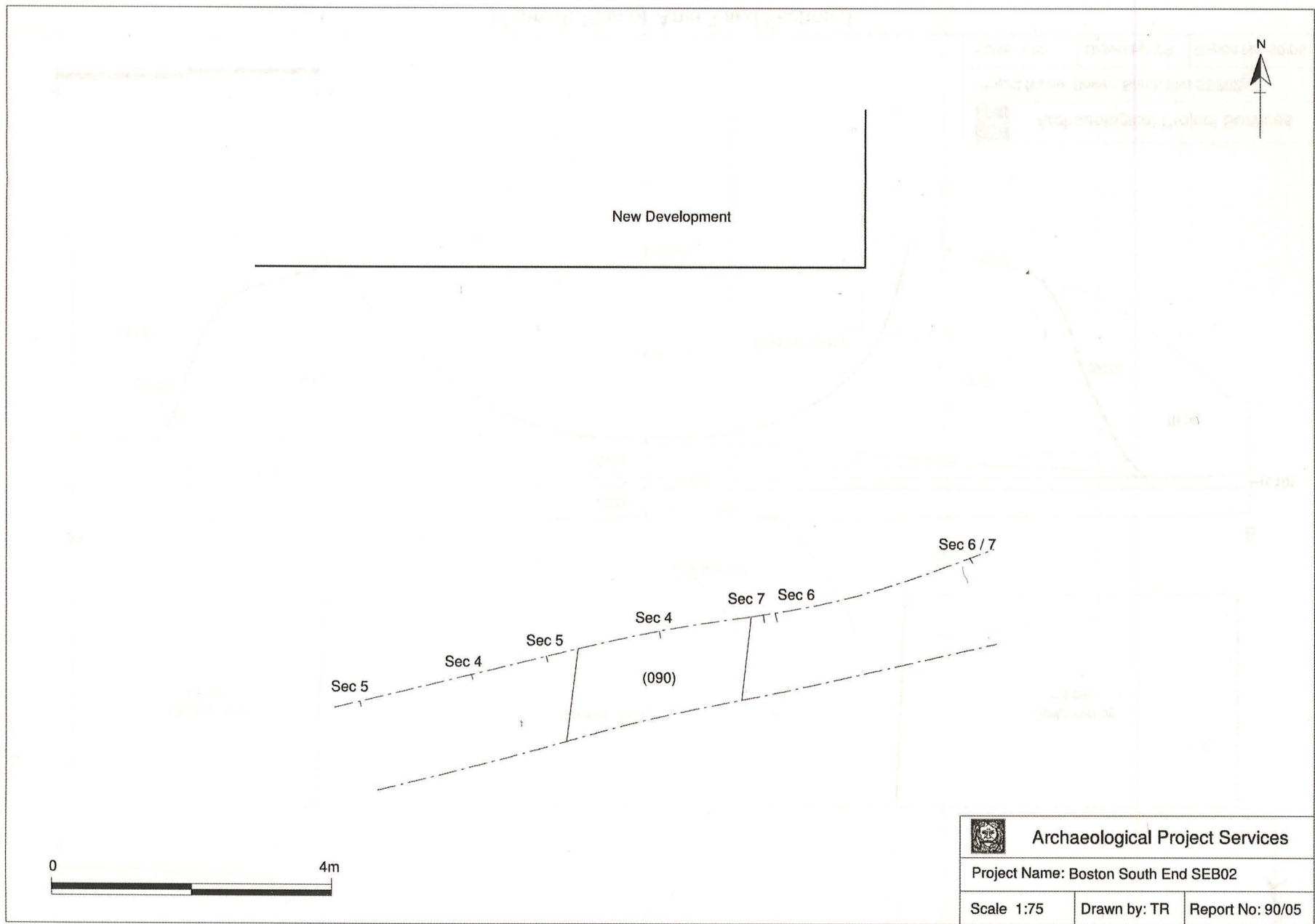


Figure 9: Detailed plan of Sections (4 to 7) location, drainage run

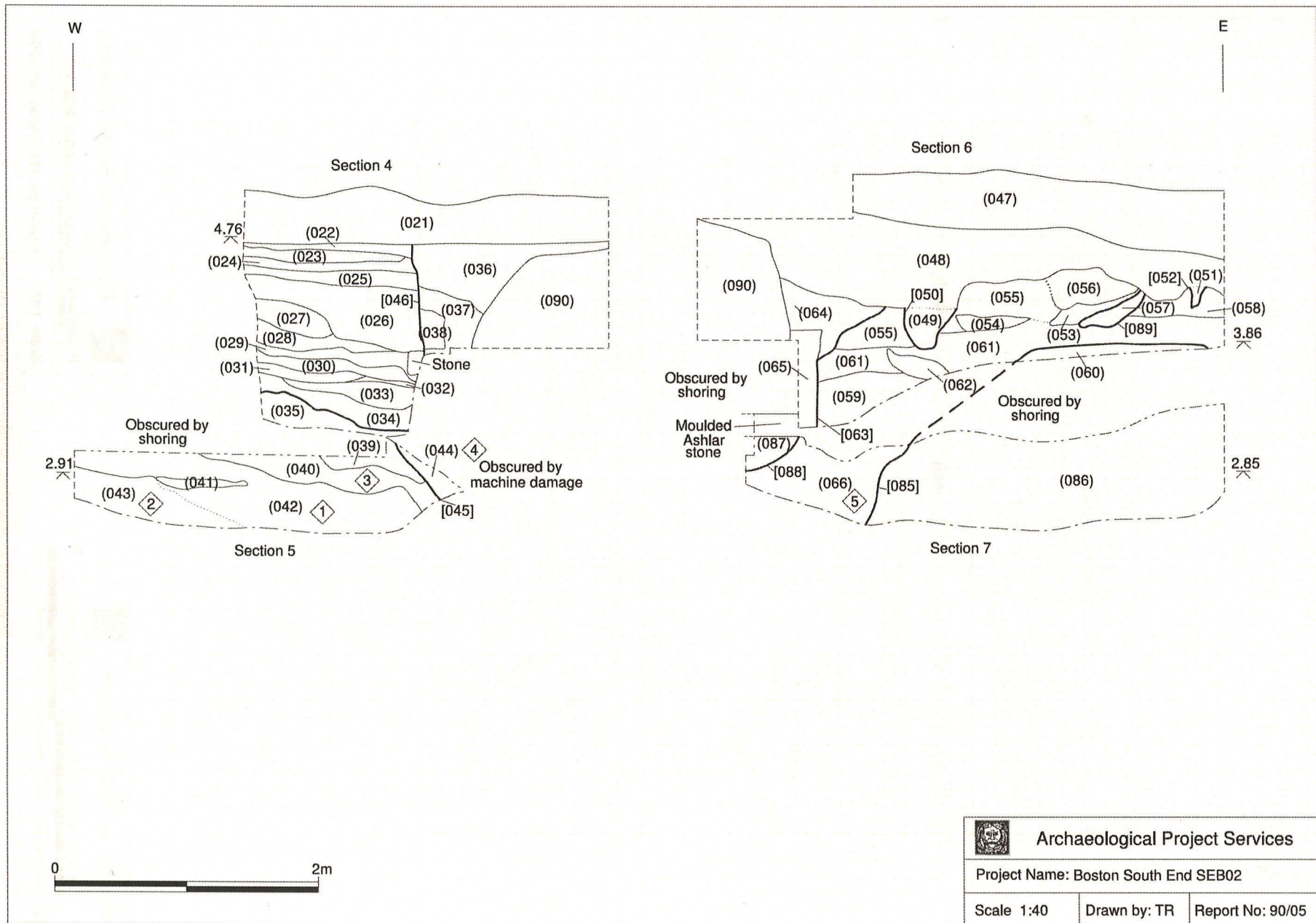
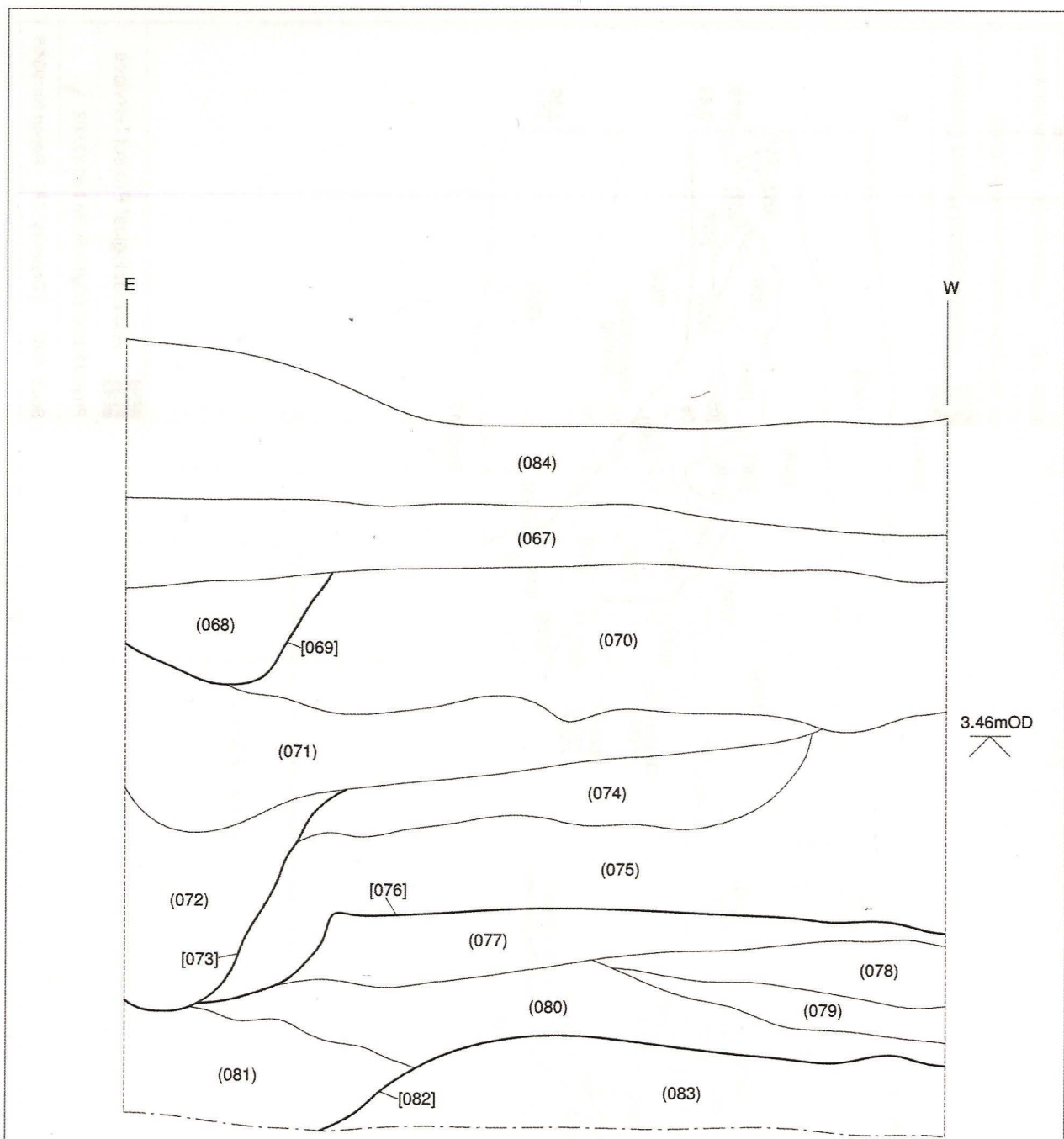


Figure 10: Sections 4 - 7, drainage run



Section 8




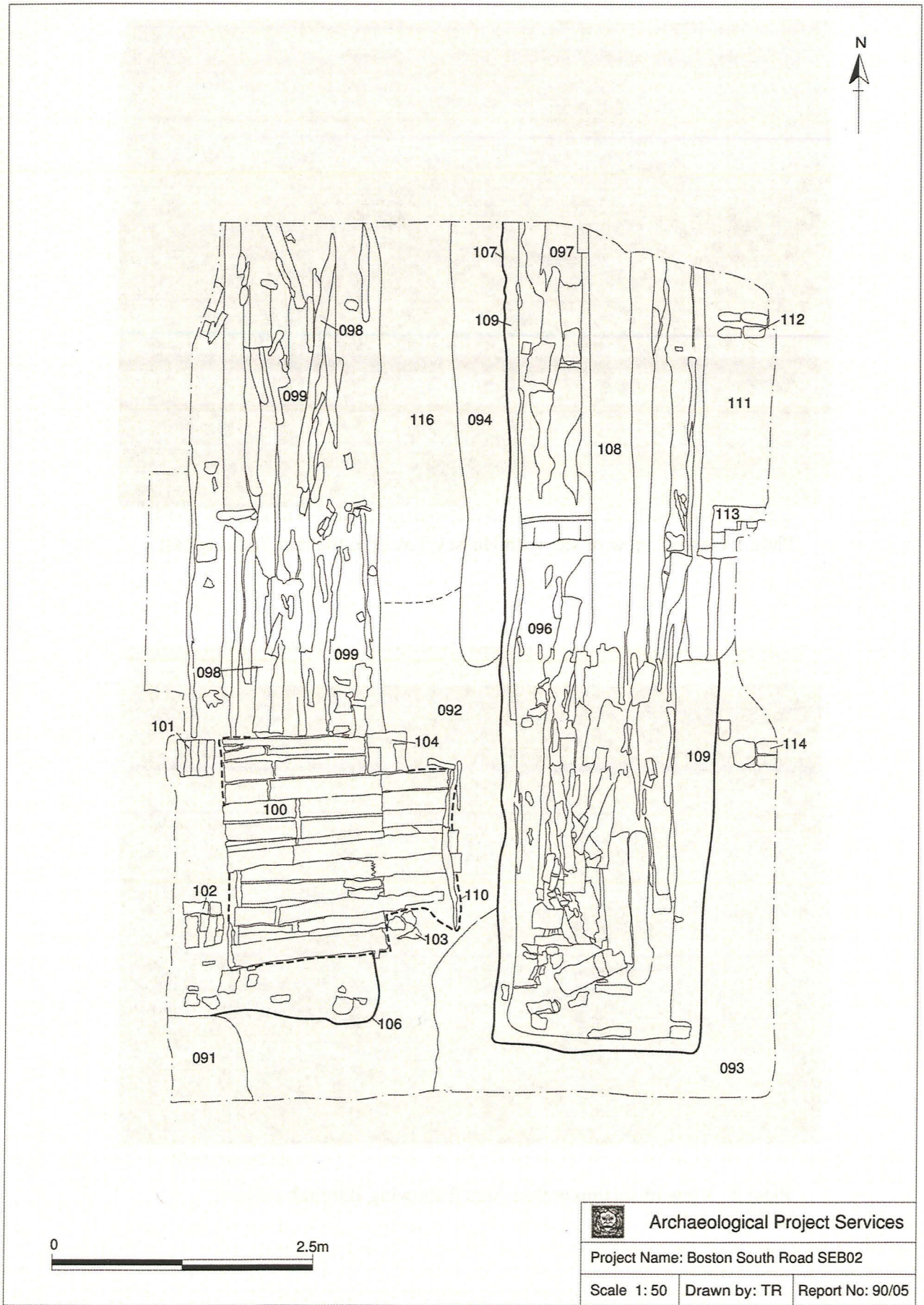
 Archaeological Project Services		
Project Name: Boston South End SEB02		
Scale 1:15	Drawn by: TR	Report No: 90/05

Figure 11: Section 8, surface water manhole




 Archaeological Project Services		
Project Name: Boston South Road SEB02		
Scale 1: 50	Drawn by: TR	Report No: 90/05

Figure 12: Plan of Access Road Area



Plate 1 General view of site with Hussey Tower to the rear, looking east



Plate 2 View of section within Area 2 showing Barditch culvert, looking south



Plate 3 Section 6 indicating deposits to the east of the Barditch, looking north



Plate 4 View of deposits within surface water manhole Section 8, looking south



Plate 5 Exposed area at the entrance of the Access Road, clearly showing timber features, looking south



Plate 6 Northern view of timber features in entrance to Access Road

Appendix 1

Specification for archaeological investigations land at South End/Skirbeck Road, Boston, Lincolnshire

1 SUMMARY

- 1.1 *This document comprises a specification for the archaeological investigation of land at South End/Skirbeck Road, Boston, Lincolnshire.*
- 1.2 *The site lies in the south of the historic core of Boston, astride the Barditch, the medieval boundary of the town and adjacent to 15th century Hussey Tower. Previous investigations at the site established that medieval remains including brick structures, predating or associated with Hussey Tower, a substantial limestone wall that may be part of an adjacent medieval friary, and timber-revetted creeks were located on the site. Possible salt-making evidence of Roman date was also identified. The site appears to have largely been abandoned in the post-medieval period, though the Barditch was maintained and enclosed in a brick culvert.*
- 1.3 *Planning permission has been granted for commercial development of the site. The archaeological works, comprising a watching brief during development groundwork and an archaeological excavation of a section across the Barditch prior to the installation of a drain, are being undertaken as a condition of that permission.*
- 1.4 *On completion of the fieldwork the results will be assessed and analysed where deemed appropriate by the assessment. Significant remains from the previous investigation of the site will be analysed. An analytical report will be prepared detailing the findings of the current and previous investigations. The report will consist of a text describing the nature of the archaeological deposits located and will be supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a specification for the archaeological field investigation of land at South End/Skirbeck Road, Boston, Lincolnshire.
 - 2.1.1 The document contains the following parts:
 - 2.1.2 Overview
 - 2.1.3 The archaeological and natural setting
 - 2.1.4 Stages of work and methodologies to be used
 - 2.1.5 List of specialists
 - 2.1.6 Programme of works and staffing structure of the project

3 SITE LOCATION

3.1 Boston lies 45km southeast of Lincoln and 7km from the northwestern coast of The Wash in the fenland of south Lincolnshire. The site is in the south of the town on the east bank of the Haven adjacent to the Hussey Tower at the junction of South End and Skirbeck Road. The site is located at national grid reference TF 3305 4363.

4 PLANNING BACKGROUND

4.1 Planning permission (application numbers B/99/0426/FULL and B/99/0433/OUTL) for the construction of a new postal sorting office has been granted by Boston Borough Council, subject to conditions that the applicant should secure the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved by the planning authority, and mitigation in all areas of ground disturbance.

4.2 The present document constitutes a scheme of archaeological investigation.

5 SOILS AND TOPOGRAPHY

5.1 The site lies at approximately 5m OD on a slight slope down to the east, away from the river. As an urban area soils have not been mapped but are likely to be Wisbech Series typically coarse, silty alluvial gleys (Robson 1990, 36). Beneath these soils are deposits of marine alluvium overlying glacial drift that was deposited in a geological basin between the Lincolnshire Wolds and the East Anglian Heights (Harden 1978, 5).

6 ARCHAEOLOGICAL OVERVIEW

6.1 The site lies at the southern edge of the historic town centre and is crossed by the Barditch, the medieval boundary around the core of the town. This boundary is first mentioned in 1160 and by the 13th century there are records of properties outside its line.

6.2 Previous archaeological investigations in the vicinity have revealed medieval deposits generally between 1-3m below the modern ground surface, though the Barditch extends to about 5m depth and other negative features may also be more than 3m below ground level (Davies and Symonds 1988; Archaeological Project Services 2001; 2002). The site appears to have been open marshland until the 12th-13th century when there is evidence of timber structures and wooden revetting or canalisation of natural creeks. Episodes of flooding and silt deposition in the medieval period were identified and perhaps relate to documented evidence of floods during the Middle Ages (Thompson 1856). Occupation of the area increased through the medieval period. A substantial limestone wall was revealed at the northern edge of the site and may be part of the adjacent Franciscan Friary of medieval date. In the eastern part of the site remains of several brick buildings were exposed and may relate to 15th century Hussey Tower, which stands adjacent, though some of the buildings appear to be earlier. The occupation appears to have been high status as large quantities of imported German pottery, decorated glass vessels, and a seal matrix of an apparently German merchant were recovered. The original cut for the Barditch was also revealed (Archaeological Project Services 2001). Other medieval

ditches or creeks, and a stone surface close to Hussey Tower, have also been identified during investigations at the site. There is also some record of a large medieval pit or ditch and human burials being found at the site (Davies and Symonds 1988). Remains of a medieval brick structure was also revealed in the southern part of the site, extending the evidence for buildings in the area (Archaeological Project Services 2002).

6.3 Evidence of waterlogged organic preservation has been identified at the site, with *in situ* timber structural remains, including wattle fencing and other wooden structural features revealed. In addition, wooden and leather artefacts preserved by waterlogging, were recovered. Waterlogging was identified at a height of c. 3.5m OD, generally about 1.5m below the present ground surface. There was little post-medieval activity at the site, which seems to have been abandoned after the medieval period until perhaps the 18th century (Archaeological Project Services 2001).

6.4 The top of the medieval deposits was revealed generally about 1.0-1.5m below the current ground surface and they generally extended to between 0.8m and 2.5m thick, though in the Barditch they persist to about 5m below ground level.

6.5 Roman remains have been found about 1.4m below the current ground surface, at a height of 2m OD, just to the north of the current site. Other Roman artefacts have also been found in the immediate area and previous investigations at the site have yielded Roman pottery and possible evidence of salt-making in the Roman period. These were, however, redeposited and there was no clear evidence of Roman deposits at the site (*ibid.*).

7 AIMS AND OBJECTIVES

7.1 The aim of the watching brief will be to monitor all groundworks and record and interpret the archaeological deposits and remains exposed during development groundwork.

7.2 The aim of the excavation will be to preserve by record all archaeological remains that will be unavoidably affected by development works at this location.

7.3 The objectives of the work will be to fully investigate and establish the type, chronology, density, spatial arrangement and extent of archaeological remains revealed by the development works.

8 LIAISON WITH THE ARCHAEOLOGICAL CURATOR

8.1 The excavation area is across the line of the Barditch. It is proposed to excavate a length that just exceeds the width of the Barditch, down to 0.5m below the depth of the base level of the drain trench that will cross the area.

8.2 The investigation area will be opened by machine under archaeological supervision. Archaeological remains of early post-medieval (16th-17th century) date and earlier will be manually investigated and excavated, to 0.5m below the base level of the intended drainage trench. The course of this drain is shown on the site surface water and foul drainage plan by the Calvert Kemp Partnership.

9 WATCHING BRIEF

9.1 The watching brief will commence as an intensive and continuous monitoring operation and will be undertaken during the ground works phase of development, and includes the archaeological monitoring of all phases of soil movement. If it proves that archaeological remains are not disturbed or not evident in the groundwork this may be subject to revision after consultation with the Boston Community Archaeologist.

9.2 Stripped areas and trench sections will be observed regularly to identify and record deposits that are exposed. The section drawings of the trenches will be recorded at a scale of 1:10 and plans at 1:20. Should archaeological remains and features be exposed, consultation with the archaeological curator and Planning Department will take place. Written descriptions detailing the nature of the deposits encountered will be compiled on Archaeological Project Services' pro-forma record sheets.

9.3 Any finds recovered will be bagged and labelled for later assessment/analysis.

10 EXCAVATION

10.1 The excavation area will be located over the position of the Barditch where it is crossed by the drainage trench, in the area shown on the 'surface water and foul drainage' plan by Calvert Kemp Partnership. The excavation area will be 0.5m deeper than the drainage trench, and the minimum appropriate width to permit the adequate, safe investigation of archaeological deposits to the specified depth. The proposed length of the excavation area is 6-7m, this being slightly greater than the width of the Barditch established by previous investigation (Archaeological Project Services 2001).

10.2 General Considerations

10.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the investigation. The excavation area will be fenced off.

10.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). *Archaeological Project Services* is an IFA Registered Archaeological Organisation (No. 21).

10.2.3 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.

10.2.4 The area will be fully excavated down to a depth of 0.5m below the base level of the drainage trench which will be approximately 1m below existing ground level. Should archaeological remains be revealed at that depth they will be recorded in plan only, and not excavated.

10.3 Methodology

10.3.1 Removal of modern overburden will be undertaken by mechanical excavator using toothed and toothless ditching buckets. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be supervised by Archaeological Project Services. On completion of the

removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation before any further mechanical excavation that may be required. Thereafter, the trench will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.

10.3.2 All deposits and features, to a depth of 0.5m below the base of the drain trench through the width of the Barditch, will be fully excavated and recorded. All negative features will be sectioned then fully excavated.

10.3.3 Samples will be taken from all waterlogged feature fills. Samples will be retained from approximately 50% of postholes.

10.3.4 The archaeological features encountered will be recorded on Archaeological Project Services' pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.

10.3.5 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at a more appropriate scale.

10.3.6 Throughout the duration of the investigation a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:

- the site before the commencement of field operations.

- the site during work to show specific stages of work, and the layout of the archaeology within the area.

- individual features and, where appropriate, their sections.

- groups of features where their relationship is important.

- the site on completion of field work

10.4 Should human remains be encountered, the appropriate Home Office licences for exhumation will be obtained and the local environmental health department informed. If relevant, the coroner and the police will be notified.

10.5 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis.

10.6 The precise location of the excavation area within the development site and the location of site recording grid will be established by an EDM survey.

11 ENVIRONMENTAL ASSESSMENT

11.1 Due to the nature of the investigation, provision will be made for an environmental archaeologist to visit the site and prepare a report detailing the nature of the environmental material present and its potential for analysis.

12 POST-EXCAVATION AND REPORT

12.1 The post-fieldwork examination of the results of this investigation will be in the form of a MAP2 assessment (English Heritage 1991). Full analysis of the findings will proceed directly, where the assessment shows this is merited. The reporting of the current investigation will incorporate analysis of data, artefacts and environmental material resulting from the previous evaluation of the site, where identified as necessary by the earlier assessment of that material.

12.2 Stage 1

12.2.1 On completion of site operations, the records and schedules produced during the investigations will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.

12.2.2 All finds recovered during the investigations will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

12.3 Stage 2

12.3.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.

12.3.2 Finds will be sent to specialists for assessment.

12.3.3 Where identified by the artefact specialists as meriting fuller examination/analysis/conservation, any artefacts recovered during the current investigation, or deriving from the previous evaluation of the site (Archaeological Project Services 2001), will be subject to the appropriate specialist treatment and analyses. This will include the following:

12.3.4 MEDIEVAL POTTERY (Jane Young)

12.3.4.1 The pottery from the evaluation adds considerably to our knowledge of the ceramic sequence in Boston from the later 13th to mid 15th centuries. The assemblage is notable in that it lacks both the high residual element present in many urban groups and has also remained relatively undisturbed. The condition and size of the fragments suggest that much of the material represents primary deposition as refuse and that much of the material is domestic. The following aspects have been identified as meriting further analysis:

12.3.4.2 Misfired Toynton-type (BOSTTT) and Lincoln-type (BOSTLT) vessels were

recovered during the earlier evaluation and should be subject to scientific analysis as part of the Lincolnshire Fabric Type Series to determine their exact nature;

12.3.4.3 Further identification of sub form types and unidentified fabrics should be carried out;

12.3.4.4 Several (four) vessels thought to be late Beverley or Humber types should be submitted to the regional expert (Peter Didsbury) for further identification;

12.3.4.5 Eleven vessels were selected for drawing; six have been drawn, the remaining five should be drawn;

12.3.4.6 Information gained from examination of the pottery should be used in conjunction with other recently excavated assemblages to construct a set of ceramic dating horizons for Boston.

12.3.5 IMPORTED MEDIEVAL POTTERY (Alan Vince)

12.3.5.1 The imported pottery can aid the study of medieval trade into Boston and place that trade in an international context. In almost every case the archaeological context of the finds can be dated and the finds give a reasonable coverage of the high medieval (250-1350) and late medieval (1350-1450) periods. The late medieval period is usually not well represented in Boston and it is rare to find apparently closed assemblages of this date. The material is exceptional and merits a high level of scientific analysis because of this, and also because no similar work has ever been undertaken on these imported types from Boston. The following items have been identified as requiring further work/analysis:

12.3.5.2 The finds should be catalogued in sufficient detail and with reference to standard typologies;

12.3.5.3 Where appropriate, vessels should be illustrated or related to published types (in most cases the forms have been previously published and reference to these will be adequate);

12.3.5.4 The following sherds should be subject to petrological analysis: Paffrath-type ware (BLGR) [neither typical of the ware or forms] – 2 sections; Early German Stoneware (EGSW) – 3 sections; Low Countries Greyware (LCGR) – 3 sections;

12.3.5.5 Several types should be subject to chemical analysis using inductively-coupled plasma emission spectroscopy (ICPS): Low Countries highly decorated ware jug (AARD) for comparison with Bruges kiln – 1 sample; Dutch red earthenware (DUTR) for comparison with the AARD and Bruges samples and for comparison with DUTR vessels of later date from Pescod Square, Boston – 7 samples; Early German Stonewares (EGSW) for comparison with known middle Rhine imports – 3 samples; Langerwehe (LANG) vessels for comparison with published data from a Langerwehe kiln site – 6 samples; Low Countries Greyware (LCGR) – 3 samples; North French-Picardy? ware (NFREM) – 1 sample; Saintonge mottled glazed ware (SAIM) – 8 samples.

12.3.6 VESSEL GLASS (H.E.M. Cool)

12.3.6.1 The fragments of the two medieval glass vessels are of great importance. On a local level they are significant as refuse from an elite site. On a national level they are significant additions to the corpus of luxury glass known to have been in use during that period. Boston has produced important medieval glass before, from the Dominican Friary, and this material is a most interesting and important addition to that corpus. In consequence, the following is recommended:

12.3.6.2 The fragments of the two medieval glass vessels should be published, preferably in a national journal.

12.3.7 ENVIRONMENTAL MATERIAL (A Snelling)

12.3.7.1 All the samples from the evaluation appear to contain a range of domestic debris. The range and quality of the data recovered have a high potential for addressing a variety of questions about medieval life, including dietary habits, local agricultural and fishing industries and their changes through time, and general living conditions in the medieval town. Assessment has identified a range of foodstuffs that could probably be extended by further study. Waterlogging has led to the excellent preservation of a variety of organic remains, including insects and wild flora that may be able to offer some indication of the hygiene and local living conditions. As a result, the following is recommended:

12.3.7.2 Further analysis should be undertaken on several samples from the earlier evaluation. These samples, which contained a diversity of waterlogged seeds, insects and wood fragments, as well as other artefacts, are: sample <37>, dumped deposit; sample <29> cess pit; and possibly sample <31> creek fill;

12.3.7.3 Sampling in any future site investigation should be used to address wider issues of food supply to the town; the town's influence on local agriculture and fishing, and changes therein through time; the apparent absence of craft/industry and its relation to site function.

12.4 Stage 3

12.4.1 On completion of stage 2, a report detailing the findings of the investigation will be prepared. This will consist of:

- A non-technical summary of the results of the investigation.
- A description of the archaeological setting of the site.
- Description of the topography and geology of the investigation area.
- Description of the methodologies used during the investigation and discussion of their effectiveness in the light of the results
- A text describing the findings of the investigation.
- Plans of the trenches and other areas of ground disturbance/archaeological monitoring.

- Plans showing the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
- Sections of the trenches and archaeological features.
- Interpretation of the archaeological features exposed and their context within the surrounding landscape.
- Specialist reports on the finds from the site.
- Appropriate photographs of the site and specific archaeological features or groups of features.

13 ARCHIVE

- 13.1 The documentation, finds, photographs and other records and materials generated during the investigation will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This sorting will be undertaken according to the document titled *Conditions for the Acceptance of Project Archives* for long-term storage and curation.
- 13.2 Copies of all foundation and drainage plans, together with details of these works, will also be deposited in archive.

14 REPORT DEPOSITION

- 14.1 Copies of the investigation report will be sent to: the client, Reay and Co Ltd; the Community Archaeologist, Boston Borough Council; Boston Borough Council Planning Department; and the Lincolnshire County Sites and Monuments Record.

15 PUBLICATION

- 15.1 A report of the findings of the investigation will be submitted for inclusion in the journal *Lincolnshire History and Archaeology*. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.
- 15.2 The report will integrate the analytical aspect resulting from the current investigation and the previous evaluation.

16 CURATORIAL MONITORING

- 16.1 Curatorial responsibility for the project lies with Community Archaeologist, Boston Borough Council. They will be given as much written notice as possible of the commencement of the project to enable them to make appropriate monitoring arrangements

17 VARIATIONS TO THE PROPOSED SCHEME OF WORKS

- 17.1 Variations to the scheme of works will only be made following written confirmation from the archaeological curator.
- 17.2 Should the archaeological curator require any additional investigation beyond the scope of the brief for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

18 SPECIALISTS TO BE USED DURING THE PROJECT

- 18.1 The following organisations/persons will, in principle and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr D Knight, Trent and Peak Archaeological Trust Roman: B Precious, independent specialist Anglo-Saxon: J Young, independent specialist Medieval and later: H Healey, independent archaeologist; or G Taylor, APS
Other Artefacts	J Cowgill, independent specialist; or G Taylor, APS
Human Remains Analysis	R Gowland, independent specialist
Animal Remains Analysis	Environmental Archaeology Consultancy; or P Cope-Faulkner, APS
Environmental Analysis	Environmental Archaeology Consultancy
Radiocarbon dating	Beta Analytic Inc., Florida, USA
Dendrochronology dating	University of Sheffield Dendrochronology Laboratory

19 PROGRAMME OF WORKS AND STAFFING LEVELS

- 19.1 The duration and staffing levels will be appropriate for the necessary investigation.
- 19.2 Post-excavation analysis and report production is dependent on the quantity of

archaeological remains within the investigation area, and the presence of waterlogged or other environmental remains. A project officer or supervisor will undertake most of the analysis, with assistance from the finds supervisor and CAD illustrator. Specialist time is allotted in the project budget.

19.3 Contingency

19.3.1 Contingencies have been specified in the budget. These include: environmental sampling/analysis of waterlogged remains (some limited sampling and examination of environmental samples included in the project budget – this contingency is for unexpected quantities or quality of remains requiring examination); Roman pottery -large amounts (small-moderate quantities expected and allowed for); Medieval and later pottery- very large quantities (moderate-large amount expected and allowed for); faunal remains -large quantities (moderate amounts expected and allowed for); Special (non-pottery) finds –large amounts (small-moderate quantities expected and allowed for); Conservation and/or Other unexpected remains or artefacts.

19.3.2 The activation of any contingency requirement will be by the archaeological curator and the client, not Archaeological Project Services.

20 INSURANCES

20.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability insurance to £10,000,000. Additionally, the company maintains Public and Products Liability insurances, each with indemnity of £5,000,000. Copies of insurance documentation can be supplied on request.

21 COPYRIGHT

21.1 Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.

21.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.

21.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act 1988* for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said Planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act 1988* and may result in legal action.

21.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

22 BIBLIOGRAPHY

Archaeological Project Services, 2001 *Archaeological Evaluation of land at South End, Skirbeck Road, Boston, Lincolnshire (BSE01)*, APS Report No. **152/01**

Archaeological Project Services, 2002 *Intensive Archaeological Watching Brief on land at South End, Skirbeck Road, Boston, Lincolnshire (BSR02)*, APS Report No. **33/02**

Davies, G. and Symonds, J., 1988 *An Archaeological Assessment, South End, Boston*, Trust for Lincolnshire Archaeology

English Heritage, 1991 *Management of Archaeological Projects*, version 2

Harden, G., 1978 *Medieval Boston and its Archaeological Implications*

Robson, J.D., 1990 *Soils of the Boston and Spalding District*, Memoirs of the Soil Survey of Great Britain

Thompson, P., 1856 *The History and Antiquities of Boston and the Hundred of Skirbeck* (Reprint 1997)

Appendix 2

Context Summary

Context	Type	Area	Description	Depth	Interpretation	Fill of/by
001	Masonry	1	Brick Culvert		Barditch	
002	Deposit	1	Loose, dark brown sandy silt with freq building debris	0.15	Topsoil	
003	Deposit	1	Loose, dark brown sandy silt with freq building debris and occ shell	0.85	Subsoil	
004	Deposit	1	Firm, mid yellowish brown clayey silt	0.1+	Flood layer	
005	Deposit	2	Indurate, dark grey tarmac	0.1	Road access	
006	Deposit	2	Compact mid whitish yellow crushed limestone	0.2	Type 1 hardcore	
007	Deposit	2	Firm, dark brownish black clayey silt with freq building debris and concrete	0.6+	Dumped layer	
008	Deposit	2	Ceramic land drain		Drain	
009	Deposit	3	Indurate, mid grey tarmac	0.2	Surface	
010	Deposit	3	Compact, mid yellowish brown concrete with gravel inclusions	0.08	Surface	
011	Deposit	3	Hard, dark greyish blue stone	0.14	Surface	
012	Deposit	3	Compact, mid greyish brown silt with freq building debris	0.7	Construction cut fill	013
013	Cut	3	N-S linear with steep sides, 1.1+m wide	0.7	Construction cut	012
014	Deposit	3	Firm, dark brown silt with occ brick rubble and concrete	0.8+	Dumped layer	
015	Deposit	3	Compact, mid greyish brown silt with freq building debris	0.8	Fill of construction cut	016
016	Cut	3	N-S linear with steep sides, 1.5+m wide	0.8	Construction cut	015
017	Finds	Pile	Pottery from piling			
018	Cut	Access Road	NW/SE linear with straight sides, 4m long x 1.7m wide	1.4	Pit?	019
019	Deposit	Access Road	Soft, black silt with freq organic inc	1.4	Pit? fill	018
020	Deposit	Access Road	Soft, mid reddish brown silt	1.4+	Flood layer	
021	Deposit	Barditch	Hard, dark grey silt with cbm, tarmac and debris	0.44	Modern overburden	

Context	Type	Area	Description	Depth	Interpretation	Fill of/by
022	Deposit	Barditch	Mod, dark greyish brown sandy silt with occ shell and cbm	0.08	Topsoil	
023	Deposit	Barditch	Mod, greyish brown sandy silt with freq cbm and occ gravel	0.09	Subsoil	
024	Deposit	Barditch	Mod, mottled dark greyish brown/yellowish brown silt with mod mortar and occ cc and cbm	0.14	Dumped layer	
025	Deposit	Barditch	Hard, light yellowish grey mortar with mod cbm	0.12	Demolition layer	
026	Deposit	Barditch	Mod, dark brownish grey sandy silty clay with freq cbm and occ mortar, gravel and roots	0.6	Dumped layer	
027	Deposit	Barditch	Mod, dark brownish grey clayey sandy silt with freq cbm and gravel	0.28	Dumped layer	
028	Deposit	Barditch	Mod, dark brownish grey clayey sandy silt with occ cbm, mortar and gravel	0.2	Dumped layer	
029	Deposit	Barditch	Mod, mid reddish brown clayey silt with freq burnt deposits, occ cc and shell and rare cbm and gravel	0.3	Burnt layer	
030	Deposit	Barditch	Mod, dark greenish grey silty clay with occ cc, shell and cbm and rare gravel	0.24	Dumped layer	
031	Deposit	Barditch	Mod, dark grey clayey sandy silt with occ gravel and rare cc and shell	0.16	Dumped layer	
032	Deposit	Barditch	Mod, mid greyish brown clayey sandy silt with rare cc and shell	0.08	Dumped layer	
033	Deposit	Barditch	Compact, mid brownish grey clayey silt	0.22	Dumped layer	
034	Deposit	Barditch	Mod, mid greyish brown sandy silty clay with freq cbm and occ gravel, cc, shell and mortar	0.44	Tipping layer	
035	Deposit	Barditch	Compact, laminated mid brownish grey/mid brown sandy silt with occ cbm and gravel	0.32	Flood layer	
036	Deposit	Barditch	Hard, dark brown sandy silty clay with freq cbm and mortar and occ coal and gravel	0.52	Backfill	046
037	Deposit	Barditch	Hard, dark greyish brown sandy, silty clay with occ gravel and cc	0.5	Backfill	046
038	Deposit	Barditch	Soft, white sand with freq mortar and occ cbm	0.32	Backfill lens	046
039	Deposit	Barditch	Mod, mid greyish brown sandy silt with occ cc and shell	0.37	Tipping layer	
040	Deposit	Barditch	Compact, black silt with freq organics and occ shell	0.62	Barditch fill	
041	Deposit	Barditch	Stiff, dark brownish grey clayey silt with occ cc	0.08	Lens within 042	

Context	Type	Area	Description	Depth	Interpretation	Fill of/by
042	Deposit	Barditch	Mod, mid brownish grey clayey silt with occ cc and rare gravel	0.58	Barditch fill	
043	Deposit	Barditch	Mod, dark brownish grey clayey silt with occ cc	0.42	Barditch fill	
044	Deposit	Barditch	Mod, black silt with occ gravel and shell	0.44	Barditch fill	045
045	Cut	Barditch	N-S linear with concave side, 0.54+m wide	0.44	Barditch	044
046	Cut	Barditch	N-S linear with vertical sides, 1.6m+ wide	0.88	Barditch (culvert)	036 - 038
047	Deposit	Barditch	Hard, mid reddish brown silt with freq building debris	0.56	Modern overburden	
048	Deposit	Barditch	Mod, dark greyish brown sandy silt with occ cc and mortar and rare shell and roots	0.74	Dumped layer	
049	Deposit	Barditch	Mod, dark brownish grey silty clay with occ cc and rare gravel	0.32	Pit or post hole fill	050
050	Cut	Barditch	Feature with concave western side and convex eastern side, 0.4m wide	0.32	Pit or post hole	049
051	Deposit	Barditch	Mod, dark brownish grey sandy silty clay with occ cbm and gravel	0.16	Post/stake hole fill	052
052	Cut	Barditch	Feature with convex sides, 0.1m wide	0.16	Post/stake hole	051
053	Deposit	Barditch	Mod, light brownish grey silty clay with freq iron staining and rare cc, same as 058	0.28	Dumped layer	
054	Deposit	Barditch	Mod, dark brownish grey sandy silty clay with occ cc and cbm and rare gravel	0.14	Dumped layer	
055	Deposit	Barditch	Mod, mid greyish brown silty clay with occ cc and rare shell and gravel	0.41	Dumped layer	
056	Deposit	Barditch	Mod, dark greyish brown silty clay with occ cbm	0.52	Dumped layer	
057	Deposit	Barditch	Loose, dark brownish grey clayey sandy silt with occ cbm and gravel and rare cc	0.26	Animal burrow fill	089
058	Deposit	Barditch	Stiff, light brownish grey silty clay with rare cbm and shell, same as 053	0.23	Dumped layer	
059	Deposit	Barditch	Hard, laminated mid greyish brown sandy silt with rare cbm and mortar	0.4	Flood layer	
060	Deposit	Barditch	Hard, laminated mid greyish brown sandy silt with rare cbm and mortar	0.11	Flood layer	
061	Deposit	Barditch	Mod, mid greyish brown silty clay with occ shell, cbm and cc and rare gravel	0.5	Dumped layer	
062	Deposit	Barditch	Mod, dark greyish brown silty clay with occ mortar, cbm, cc and gravel	0.24	Lens within 061	
063	Cut	Barditch	N-S linear with gently sloping side becoming vertical, 1.2m+ wide	0.9	Barditch (culvert)	064, 065

Context	Type	Area	Description	Depth	Interpretation	Fill of/by
064	Deposit	Barditch	Soft, white mortar	0.6	Barditch fill	063
065	Masonry	Barditch	Brick structure with white mortar bonding	0.74	Barditch culvert	063
066	Deposit	Barditch	Mod, dark brownish grey silty clay with freq cc	0.6	Barditch fill	085
067	Deposit	8	Indurate, black tarmac and gravel	0.25	Surface	
068	Deposit	8	Stiff, light greyish brown silt	0.25	Gully fill	069
069	Cut	8	N-S linear with sloping sides and concave base, 0.5m+ wide	0.25	Gully	068
070	Deposit	8	Mod, dark greyish brown sandy clayey silt with occ pebbles, cc, shell and cbm	0.4	Dumped layer	
071	Deposit	8	Stiff, mid greyish brown clayey silt	0.4	Dumped layer	
072	Deposit	8	Mod, mid greyish brown clayey silt	0.55	Ditch fill	073
073	Cut	8	N-S linear with steep sides and flattish base, 0.5m+ wide	0.55	Ditch	072
074	Deposit	8	Mod, mid greyish brown silty clay	0.2	Boundary gully fill	076
075	Deposit	8	Mod, dark greyish brown silty clay with rare cc and pebbles	0.55	Boundary gully fill	076
076	Cut	8	N-S linear with concave sides and base, 0.2m wide	0.2	Boundary gully	074, 075
077	Deposit	8	Mod, light brown silt with rare cc	0.2	Boundary ditch fill	082
078	Deposit	8	Mod, mid greyish brown silty clay with occ cc	0.15	Boundary ditch fill	082
079	Deposit	8	Mod, light brown sandy silt	0.1	Boundary ditch fill	082
080	Deposit	8	Mod, dark brownish grey silty clay with occ shell and pebbles	0.2	Boundary ditch fill	082
081	Deposit	8	Mod, mid greyish brown clayey silt	0.25	Boundary ditch fill	082
082	Cut	8	N-S linear with shallow convex sides, 0.7m+ wide	0.25	Boundary ditch	077 - 081
083	Deposit	8	Mod, mid greyish brown clayey silt	0.25	Natural	
084	Deposit	8	Loose, light yellow crushed limestone	0.4	Hardcore for construction	
085	Cut	Barditch	N-S linear with stepped concave side, 0.56m wide	0.6	Barditch	066
086	Deposit	Barditch	Mod, laminated mid dark grey clayey silt with occ roots	0.98	Natural	
087	Deposit	Barditch	Mod, light grey mortar with occ cbm	0.3	Barditch (culvert) fill	088

Context	Type	Area	Description	Depth	Interpretation	Fill of/by
088	Cut	Barditch	N-S linear with concave sides, 0.5m+ wide	0.3	Barditch (culvert)	087
089	Cut	Barditch	Feature with irregular sides and flat base, 0.48m wide	0.26	Animal burrow	057
090	Feature	Barditch	Brick built culvert		Barditch	
091	Deposit	Access road	Soft, light brown silty sand with occ cc, tile and shell		Dumped layer	
092	Deposit	Access road	Compact, mid grey sandy clay with freq cc, tile and shell		Dumped layer	
093	Deposit	Access road	Not recorded		Dumped layer	
094	Deposit	Access road	Firm, mid grey silty sand with freq cc and tile and occ shell and pebbles		Dumped layer	
095	Timber	Access road	Fragmentary flat planks similar to 098		Wooden floor	107
096	Deposit	Access road	Friable, dark grey silty clay		Floor cut fill	107
097	Timber	Access road	Wooden planks, 4.5m long x 0.68m wide		Floor covering pit	107
098	Deposit	Access road	NW-SE aligned wooden planks, 5m long x 0.1m wide	0.02	Floor covering pit	106
099	Deposit	Access road	Firm, dark grey sandy silt with freq tile and occ shell and pebbles		Floor cut fill	106
100	Timber	Access road	NE-SW aligned wooden planks, 1.53m long x 0.18m wide	0.02	Pit cover	110
101	Masonry	Access road	Mortar bonded bricks (237mm x 120mm x 51mm), 0.35m long x 0.27m wide	0.25	Plinth	
102	Masonry	Access road	Mortar bonded bricks (250mm x 120mm x 51mm), 0.38m long x 0.33m wide	0.03	Plinth	
103	Masonry	Access road	Mortar bonded bricks (224mm x 104mm x 72mm), 0.3m long x 0.33m wide	0.06	Plinth	
104	Masonry	Access road	Mortar bonded bricks (224mm x 98mm x 50mm), 0.36m long x 0.36m wide	0.05	Plinth	
105	Not used	Access road				
106	Cut	Access road	N-S linear, 7.8m long x 1.9m wide		Floor cut	098, 099
107	Cut	Access road	N-S linear, 7.9m long x 2m wide		Floor cut	095, 096, 097, 108, 109
108	Timber	Access road	NW-SE aligned wooden plank, 4.25m long x 0.37m wide	0.03	Floor repair	107
109	Deposit	Access road	Firm, dark grey sandy silt with occ tile and cc		Floor cut fill	107

Context	Type	Area	Description	Depth	Interpretation	Fill of/by
110	Cut	Access road	Sub-rectangular feature, 2.2m long x 1.56m wide		Pit	100
111	Deposit	Access road	Firm, mid grey silty sand with freq cc, tile and stones		Dumped layer	
112	Masonry	Access road	Mortar bonded rounded bricks (240mm x 110mm x 60mm)		Wall?	
113	Masonry	Access road	Two courses of mortar bonded rounded bricks (240mm x 110mm x 70mm)		Wall?	
114	Masonry	Access road	Single course of mortar bonded rounded bricks (240mm x 110mm x 70mm)		Wall?	
115	Finds	Access road	Finds from cleaning area around 095, 097, 098, 100 and 108			
116	Deposit	Access road	Soft mid brown with dark grey areas silty sand with occ sandstone and tile		Dumped layer	

Abbreviations:

cbm – Ceramic Building Material

mod - moderate

occ – occasional

cc – charcoal

freq - frequent

Appendix 3

The Finds

by Anne Boyle, Paul Cope-Faulkner, Rachael Hall, Hilary Healey and Gary Taylor

Recording of the pottery was undertaken with reference to guidelines prepared by the Medieval Pottery Research Group (Slowikowski *et al.* 2001) and the pottery was quantified using the chronology and coding system of the Lincolnshire ceramic type series. A total of 32 fragments of pottery weighing 1539g and representing 16 individual vessels was recovered from 5 separate contexts. In addition to the pottery, a quantity of other artefacts, mostly brick/tile and glass, comprising 74 items weighing a total of 10335g, was retrieved.

The excavated faunal assemblage comprises 14 stratified fragments weighing 126g. The animal bone was identified by reference to published catalogues. No attempt is made to sex or age animals represented within the assemblage, although where this is readily apparent is noted in the comments column.

Provenance

The material was recovered from unstratified finds from piling (017), Barditch fills (042 and 044), dumped layers (048 and 094), floor cut fills (096 and 099) and unstratified finds from cleaning of access road (115).

Most of the pottery was made in Staffordshire, though the earliest pieces were manufactured in closer proximity to Boston, elsewhere in Lincolnshire at Bourne, Old Bolingbroke and Stamford.

Some of the glass bears trademarks indicating they contained Lincolnshire products, though there is also a bottle from Germany.

Most, if not all, of the brick and tile was probably made in or near Boston. Similarly, the clay pipe is almost certainly all of Boston manufacture.

Range

The range of material is detailed in the tables.

Table 1: Pottery

Context	Fabric Code	Description	No.	Wt (g)	Context Date
017	TPW	Blue and white transfer printed tableware	1	17	19 th century
042	ST	Stamford ware, glazed	1	1	10 th -12 th century
	ST	Stamford ware, jar/pitcher, glazed, fabric B, <1>	1	1	
044	BOSTTT	Boston Toynton Type ware, ?form, <4>	1	1	17 th -18 th century
	GRE	Glazed red earthenware	1	1	
048	EMHM	Early Medieval Handmade ware, jar?, soot	1	2	12th to mid 13th
086	ST	Stamford ware, jar?, fabric G, flake, possibly early?	1	5	Mid 11th to 12th
094	BS	Brown stoneware jug/bottle handle	1	12	17 th century
115	WHITE	White glazed tableware, tall jug? 19 th -early 20 th century	12 (link)	354	19 th -early 20 th century
	TPW	Blue and white transfer printed tableware, 19 th century	1	4	
	UGRE	Unglazed red earthenware, plant pot, 19 th -20 th century	1	15	
	LSTON	Late stoneware, bottle, 19 th -early 20 th century	1	11	

Context	Fabric Code	Description	No.	Wt (g)	Context Date
	LSTON	Late Stoneware, flagon? covered with tar, 19 th -early 20 th century	4(link)	836	
	LSTON	Late Stoneware, flagon? 19 th -early 20 th century	3(link)	192	
	BS	Brown salt-glazed stoneware, bottle, 17 th century	1	2	
	BL	Blackware cup, 17 th century	1	6	
	STSL	Staffordshire Slipware, posset pot, early 18 th century	1	16	
	TB	Bolingbroke ware, shallow, wide-mouthed bowl, 16 th -17 th century	1	63	
	BOUA?	Bourne A ware? 12 th -14 th century	1	4	
	ST	Stamford ware, 9 th -12 th century	1	5	

Most of the pottery is of early modern, 19th-early 20th century, date and indicates activity on the site at that time. There is a small amount of post-medieval, probably 17th century, material that also indicates occupation at the site during that period. A few pieces of medieval pottery were also recovered, redeposited with later artefacts. However, they suggest the presence of medieval deposits in the area.

Table 2: Glass

Context	Material	Description	No.	Wt (g)	Context Date
+	Glass	Pale green, body fragment of cylindrical bottle, post-medieval	1	6	20 th century
	Glass	Brown, complete machine mould made phial. Punt mark '6', 20 th century	1	18	
	Glass	Colourless, body sherds mould made cylindrical bottle, 20 th century	2	16	
	Glass	Colourless, shoulder of machine mould made rectangular bottle, 19 th -20 th century	1	8	
	Glass	Green, base of cylindrical bottle, with deep square profiled push-up, 19 th -20 th century	1	406	
	Glass	Green body sherds cylindrical bottle, 19 th -20 th century	2	46	
096	Glass	Colourless, complete cylindrical bottle, with string rim, machine mould made with embossed 'SOULBY SONS & WINCH LTD ALFORD'. Punt mark 'KCB'	1	615	20 th century
099	Glass	Pale green, base of cylindrical bottle, machine mould made, embossed shield deco with TRADEMARK and LINCOLN. Punt mark '1420'	1	210	20 th century
115	Glass	Pale blue, almost complete octagonal medicine bottle, machine mould made with applied neck, levels marking on bottle, late 19 th - early 20 th century	1	186	20 th century

Context	Material	Description	No.	Wt (g)	Context Date
	Glass	Green, base of cylindrical bottle, mould made with embossed 'BRAUEREI BAHRENFELD', wear marks on base, 20 th century	1	258	
	Glass	Pale green, neck of cylindrical bottle with string rim, 19 th century	1	72	
	Glass	Brown, base of cylindrical bottle, conical push-up (off centre), 19 th century	1	370	
	Glass	Brown, base of cylindrical machine mould, obscured embossed lettering, 20 th century	1	156	
	Glass	Colourless, body fragments of cylindrical bottle, machine mould made embossed lettering 'USTU', 20 th century	1	36	
	Glass	Greenish/brown body fragment of cylindrical bottle	1	6	
	Glass	Green, body fragments of cylindrical bottle, post-medieval	3	42	

All of the glass is post-medieval to early modern date and some of it is marked as having contained relatively local Lincolnshire-made products, from Alford and Lincoln. There is also a bottle from Bahrenfeld, near Hamburg, Germany.

Table 3: Ceramic Building Materials

Context	Description	No.	Wt (g)	Context Date
044	Tile, oxidized throughout, mortar adhering to 1, post-medieval	3	26	Post-medieval
	Tile, reduced core, mortar adhering to 2, medieval	4	289	
	Brick/tile, mortar adhering to 2	5	20	
	Ceramic building material, calcareous, flake; odd fabric, <4>	1	1	
	Peg, nib or ridge tile, Boston fabric 3, flake; mortar, 13th to 15th, <4>	1	109	
	Peg, nib or ridge tile, Boston fabric 2, mortar, 13th to 15th, <4>	1	163	
	Peg, nib or ridge tile, oxidised medium to coarse sandy + fe, fabric includes common rounded fe >1cm, 13th to 15th, <4>	1	11	
	Peg, nib or ridge tile (discarded), various, flakes; abraded, 13th to 15th, <4>	6	24	
094	Tile, oxidized throughout	1	124	Post-medieval
096	Handmade brick, 210mm x 100mm x 63mm	1	2383	Late post-medieval
099	Tile, oxidized throughout, mortar adhering, post-medieval	1	76	Late post-medieval
	Handmade brick, mortar adhering to 1, post-medieval	2	85	
	Handmade brick, burnt on 1 surface, late medieval-early post-medieval	1	272	
	Handmade brick, late post-medieval	1	118	
115	Handmade vented brick, 19 th century	1	631	19 th century/late post-medieval
	Tile, oxidized throughout, post-medieval	7	277	

Context	Description	No.	Wt (g)	Context Date
	Tile, oxidized throughout, mortar adhering, post-medieval	2	264	
	Nibtile, reduced core, mortar adhering, medieval	1	268	
	Tile, reduced core, mortar adhering, medieval	3	269	
	Handmade brick, 50mm thick, medieval	1	415	
	Floor tile, yellow glazed, 117mm wide, 24mm thick, medieval	1	319	
	Floor tile, green glazed, 210mm wide, 28mm thick, medieval	2(link)	910	
	Pantile, late post-medieval	4	553	
	Handmade brick, mortar adhering to 3 including on broken faces	6	241	
	Brick/tile, post-medieval	1	104	

Brick and tile of medieval and post-medieval date was recovered and indicates the presence of buildings of both periods at the site. Of particular note are the glazed medieval floor tiles. Such items would have provided flooring in a significant building, such as an ecclesiastical establishment or high status domestic residence. It is possible that these tiles derived from part of the adjacent Hussey Tower complex, or perhaps from a medieval friary that was located immediately to the north of the present investigation site. The recovery of tiles glazed with different colours may indicate the floors were laid in a chequerboard pattern of alternate light and dark tiles.

Table 4: The Other Finds

Context	Material	Description	No.	Wt (g)	Context Date
115	Clay pipe	Bowl fragment, moulded acorn and oak foliage, 1850-1870	1	3	1850-70
	Clay pipe	Stem, bore 5/64", 18 th -19 th century	1	5	
	Slate	Roofing slate, post-medieval	3	220	
	Mortar	Mortar	1	12	

Part of a decorated clay pipe bowl was recovered from (115). Pipes with identical decoration have previously been found across the Boston area, and several were retrieved during excavations of a pipe kiln on Rosegarth Street, on the west side of the River Witham, from a deposit dated to about 1861. The current pipe is probably a product of the maker who operated that kiln, Edward Manning (Wells 1970, 21, 23; fig 2, no 11).

Table 5: The Faunal Remains

Context	Species	Bone	No.	Wt (g)	Comments
044	mussel	shell	3	7	
	cockle	shell	3	4	
	tellin	shell	1	1	
048	cockle	shell	2	2	
115	cattle	metatarsus	1	45	
	sheep sized	humerus	1	17	
	sheep sized	rib	2	15	
	sheep/goat	metatarsus	1	26	
	mussel	shell	1	3	
	oyster	shell	1	8	

All of the faunal remains are probably food residues.

Condition

All the material is in good condition and presents no long-term storage problems. Archive storage of the collection is by material class.

Documentation

There have been previous archaeological investigations at Boston, including at the current investigation site, that are the subjects of reports. Additionally, there has been reported study of the archaeological and historical evidence for the town. Details of archaeological sites and discoveries in the area are maintained in the files of the Boston Planning Archaeologist and the Lincolnshire County Council Sites and Monuments Record.

Potential

Much of the artefact assemblage is of post-medieval to early modern date and consequently of limited local potential and significance. However, the material does indicate use of the site in the 19th-early 20th century.

The medieval ceramic building materials are of moderate local potential and significance and indicate buildings of this period at the site. In particular, the glazed floor tiles are of medium local significance and indicate buildings of high status at the site or in the immediate proximity.

The limited quantity of medieval material recovered suggests that deposits of this date, known to occur at the site, were minimally impacted by the development and investigations.

References

Slowikowski, A., Nenck, B. and Pearce, J., 2001 *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*, Medieval Pottery Research Group Occasional Paper 2

Wells, P.K., 1970 The Excavation of a 19th century Clay Tobacco Pipe Kiln in Boston, Lincolnshire, *Lincolnshire History and Archaeology* 5

Appendix 4

The Metal Finds

by Gary Taylor

Thirty-four metal objects weighing 1820g were recovered from 4 separate contexts. Most of the material was iron, with a few copper alloy pieces.

Provenance

The material was recovered from unstratified finds from Barditch fill (042), dumped layer (048), floor cut fill (099) and unstratified finds from cleaning of access road (115).

Range

The range of material is detailed in the tables.

Table 1: Artefacts

Context	Material	Description	No.	Wt (g)	Context Date
044	Iron	Nail head	1	2	
048	Copper alloy	Thimble, 21mm high	1	6	1730-1800
099	Iron	Nail	2(link)	78	
115	Iron	Staple	1	102	Late post-medieval
	Iron	Dog-legged rectangular strip, 30mm wide, 4mm thick	1	141	
	Iron	Spike, wood attached	1	45	
	Iron	File, late post-medieval	1	110	
	Iron	File, triangular section, late post-medieval	1	97	
	Iron	Needle-pointed rod, post-medieval	3	122	
	Iron	Circular-sectioned rods, post-medieval	2	115	
	Iron	Nail	1	4	
	Iron	?Machinery bits, post-medieval	5	237	
	Iron	Nails/spikes, post-medieval	10	262	
	Iron	Thick spikes	2	94	
	Iron	Saw, 370mm long (incomplete), 105mm max width, teeth 10mm long, 10mm max width, post-medieval	1	293	
	Copper alloy	Bowl/cauldron rim, 26mm diameter, machine-finished, sooty encrustation on exterior, post-medieval	1	112	

A copper alloy thimble was recovered from (048). This is a Dutch Type III example, also used in England in the period 1730-1800 (Holmes nd, 4).

A large quantity of iron objects was recovered from (115). Many of these are nails or spikes, and one still has wood attached. Additionally, there are various forms of file, some punches or needle-pointed rods, and possible machinery bits. While some of the items, nails, staples, spikes, are from joining timber together, others seem to be from industrial activity, perhaps working of wood or other materials.

Part of a massive saw blade was also recovered from (115). This is likely to be either from a mechanical sawing

machine, or a manual, 2-man, saw.

Part of a cauldron or bowl rim in a leaded copper alloy was also recovered from (115). This has evidence of burning on the exterior and was clearly used for heating of liquids.

Condition

All the material is in good condition and presents no long-term storage problems. Archive storage of the collection is by material class.

Documentation

There have been previous archaeological investigations at Boston, including at the current investigation site, that are the subjects of reports. Additionally, there has been reported study of the archaeological and historical evidence for the town. Details of archaeological sites and discoveries in the area are maintained in the files of the Boston Planning Archaeologist and the Lincolnshire County Council Sites and Monuments Record.

Potential

The metalwork assemblage is of moderate local potential and significance, mainly because it provides functional evidence for structures incorporating timber, and industrial activity at the site in the late post-medieval period.

References

Holmes, E. F., nd *Sewing Thimbles*, Finds Research Group 700-1700 Datasheet 9

AN ASSESSMENT OF THE PLANT MACROFOSSILS AND OTHER REMAINS FROM FILLS WITHIN THE BAR DITCH AT SOUTH END, BOSTON, LINCOLNSHIRE (SEB 03).

Val Fryer, Church Farm, Sisland, Loddon, Norwich, Norfolk, NR14 6EF
March 2006

Introduction and method statement

Excavations at South End, Boston were undertaken by Archaeological Project Services in May 2003. The work recorded a succession of fills within the Bar ditch, and samples for the extraction of the plant macrofossils were taken from three deposits of tenth to twelfth century date (samples 1, 2, and 3) and a seventeenth to eighteenth century re-cut of the ditch (sample 4).

The samples were processed by manual water flotation/washover, and the flots were collected in a 500 micron mesh sieve. As all four samples were seen to contain waterlogged plant remains, the flots were stored in water prior to sorting. The wet retents were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains recorded are listed on Table 1. Nomenclature within the table follows Stace (1997), and tabulated material is waterlogged unless otherwise indicated.

The non-floating residues were collected in a 1mm mesh sieve and sorted when dry. All artefacts/ecofacts were removed and retained for further specialist analysis.

Results

Plant macrofossils

Waterlogged seeds of common weeds and wetland/aquatic plants were present at a moderate density in all four samples. Preservation was moderately good, although some specimens were severely distorted, possibly as a result of the compression of the buried deposits. Occasional charred cereal remains and seeds were also recorded, although most were very fragmented and not readily identifiable.

Charred barley (*Hordeum* sp.) grains and wheat (*Triticum* sp.) chaff, all probably derived from scattered or wind-blown domestic refuse, were recorded at a very low density from samples 1 and 2. Somewhat unusually, a single spelt wheat (*T. spelta*) glume base was also found within sample 2. Spelt production had ceased within eastern England by the Middle Saxon period, but some relicts of the crop appear to have survived as field weeds. Other potential food remains included waterlogged fig (*Ficus carica*) seeds and a grape (*Vitis vinifera*) 'pip'.

Seeds of common crop contaminants and grassland/meadow plants were present throughout. Segetal taxa included orache (*Atriplex* sp.), stinking mayweed (*Anthemis cotula*), cornflower (*Centaurea cyanus*), black bindweed (*Fallopia convolvulus*), poppy (*Papaver* sp.), knotgrass (*Polygonum aviculare*) and cornsalad (*Valerianella dentata*). Grassland and meadow taxa included buttercup (*Ranunculus* sp.), dock (*Rumex* sp.) and meadow rue (*Thalictrum flavum*). A number of ruderal taxa were also recorded including musk thistle (*Carduus* sp.), hawkweed (*Leontodon* sp.), sow-thistle (*Sonchus* sp.) and stinging nettles (*Urtica dioica*).

Seeds/fruits of wetland/aquatic plants were common in all but sample 2. Club-rush (*Bolboschoenus* sp.), sedge (*Carex* sp.) and spike-rush (*Eleocharis* sp.) fruits occurred most frequently, but seeds of marsh pennywort (*Hydrocotyle vulgaris*), rush (*Juncus* sp.), bog bean (*Menyanthes trifoliata*), pondweed (*Potamogeton* sp.), lesser spearwort (*Ranunculus flammula*), celery-leaved crowfoot (*R. sceleratus*) and bur-reed (*Sparganium* sp.) were also recorded.

Small fragments of hazel (*Corylus avellana*) nutshell and occasional elderberry (*Sambucus nigra*) seeds were the sole tree/shrub macrofossils recovered.

Charcoal fragments were present throughout, but the assemblages largely consisted of fragments of waterlogged root/stem. Other plant macrofossils were rare, but indeterminate buds, culm fragments, moss fronds and seed capsule lids were recorded along with small pieces of wood.

Animal macrofossils

Animal macrofossils were noted within in all four assemblages, although most, including the bone fragments, fish bones, eggshell and marine mollusc shell fragments were probably derived from dietary refuse. Waterlogged arthropod remains were common throughout.

Other materials

Other material types were exceedingly rare. Compacted masses of organic concretion were noted within sample 3, and mineralised concretions were present within sample 2. Other remains included rare fragments of black porous and tarry concretion, pieces of burnt or fired clay and mortar/plaster and globules of vitrified material.

Discussion and recommendations for further work

Although material derived from a variety of sources appears to be present within the assemblages, the following generalisations about the ditch and its environs may be made:

- Although undoubtedly a large open structure, the early ditch appears not to have been used for the disposal of refuse. The few remains present within the early fills are almost certainly accidental inclusions, although they may indicate that domestic activities were occurring in the near vicinity. By the post-medieval period, small-scale refuse disposal may have been taking place, although the evidence for this practise is still minimal.
- The base of the ditch was almost certainly permanently damp or partly waterfilled. The lack of shrub macrofossils probably indicates that the banks were well maintained, although some larger weeds, including thistles and sow-thistles, do appear to have been growing nearby.
- As seeds of both segetal and grassland weeds occur reasonably frequently within the assemblages, it is assumed that the ditch was flanked by areas of cultivated ground and meadow/grassland. However, at the time of writing, it is not clear whether any water-borne material, possibly derived from sources away from the immediate vicinity of the ditch, is present within the assemblages.
- Although there appears to be very little difference between the early medieval and post-medieval fills of the ditch, the late re-cut (sample 4) almost certainly contains a high density of residual material from the underlying deposits.

Although the list of species recorded is comprehensive, the taphonomy of the deposits may be very complex. Because of this, further quantification of the assemblages would probably add little additional data to that already gathered during assessment and, therefore, no additional analysis is recommended. However, a written summary of this assessment should be included within any publication of site data.

Reference

Stace, C., 1997 *New Flora of the British Isles*. Second edition. Cambridge University Press

Key to Table

x = 1 - 10 specimens xx = 10 - 100 specimens xxx = 100+ specimens
c = charred tf = testa fragments b = burnt

Sample No.	1	2	3	4
Context No.	O42	O43	O40	O44
Cereals and other possible food plants				
<i>Ficus carica</i> L.	xcf	xcf		xcf
<i>Hordeum</i> sp. (grains)	xc			
<i>Triticum</i> sp. (rachis node fragment)	xcfc			
<i>T. aestivum/compactum</i> type (rachis node)		xc		
<i>T. spelta</i> L. (glume base)		xc		
Cereal indet. (grains)		xc		
(rachis internode frag.)	xc	xc		
(rachis node fragment)	xc			
<i>Vitis vinifera</i> L.				x
Dry land herbs				
<i>Agrostemma githago</i> L.				xtf
<i>Anthemis arvensis</i> L.			xcf	
<i>A. cotula</i> L.	x		x	
Apiaceae indet.		x	x	x
<i>Armeria maritima</i> (Miller) Willd.				xcf
Asteraceae indet.	x		x	
<i>Atriplex</i> sp.	xx	xx	x	xx
Brassicaceae indet.	x	x	x	xx
<i>Carduus</i> sp.	x		x	
<i>Centaurea</i> sp.	x			
<i>C. cyanus</i> L.	x		x	
<i>Chenopodium ficifolium</i> Sm.			xcf	
Chenopodiaceae indet.	xx			x
<i>Cirsium</i> sp.			x	x
<i>Chrysanthemum segetum</i> L.				xcf
<i>Daucus carota</i> L.		xcf		
Fabaceae indet.		xc		
<i>Fallopia convolvulus</i> (L.) A. Love	xcf	xx		
<i>Galeopsis</i> sp.		x		
<i>Hyoscyamus niger</i> L.				xcf
<i>Leontodon</i> sp.	x	xcf	x	
<i>Malva</i> sp.	x	xcf		
<i>Mentha</i> sp.				x
<i>Papaver</i> sp.		x	x	
<i>P. argemone</i> L.	x	x	x	x
<i>P. dubium</i> L.	x			
<i>P. somniferum</i> L.		x		x
<i>Persicaria maculosa/lapathifolia</i>		x		x
Small Poaceae indet.		x		
Large Poaceae indet.	xc			
<i>Polygonum aviculare</i> L.	x	xx	x	x
Polygonaceae indet.	x	x		
<i>Potentilla anserina</i> L.		xcf		x
<i>Ranunculus</i> sp.	x	x		x
<i>R. acris/repens/bulbosus</i>	x	x	xx	x
<i>R. parviflorus</i> L.	x	x		x
<i>Raphanus raphanistrum</i> L. (siliqua frags.)			x	x
<i>Rumex</i> sp.	x	x	x xc	x
<i>Silene</i> sp.				x
<i>Sinapis</i> sp.			x	x
<i>Solanum nigrum</i> L.				x
Solanaceae indet.			xcf	
<i>Sonchus asper</i> (L.) Hill	x	x	x	x
<i>S. oleraceus</i> L.	x	x	x	x
<i>Stellaria</i> sp.	x	x		x
<i>S. media</i> (L.) Vill.	x	x	x	x
<i>Thalictrum flavum</i> L.			xcf	x
<i>Urtica dioica</i> L.	xx	x		x
<i>U. urens</i> L.	x	x	x	x
<i>Valerianella denata</i> (L.) Pollich	x	x	x	x
<i>Viola</i> sp.		x		
Wetland/aquatic plants				
<i>Bolboschoenus</i> sp.	xcf		xx	x
<i>Carex</i> sp.	x	x	x	xx
<i>Eleocharis</i> sp.	xx xc		xx	xx
<i>Hydrocotyle vulgaris</i> L.		x		
<i>Juncus</i> sp.				x
<i>Menyanthes trifoliata</i> L.			x	
<i>Potamogeton</i> sp.	x	x		
<i>Ranunculus flammula</i> L.	x			x
<i>R. sceleratus</i> L.	x			
<i>Sparganium</i> sp.	x			
Tree/shrub macrofossils				
<i>Corylus avellana</i> L.				x
<i>Sambucus nigra</i> L.		x		

Table 1. Plant macrofossils and other remains from the Bar Ditch fills, South End, Boston, Lincolnshire

Sample No.	1	2	3	4
Context No.	O42	O43	O40	O44
Other plant macrofossils				
Charcoal <2mm	xxx	xx		xx
Charcoal >2mm	xx	x	x	x
Charred root/stem	x	x		
Waterlogged root/stem	xxx	xxx	xx	xxx
Wood <5mm	x		x	x
Wood >5mm				x
Indet.bud				x
Indet.culm frags/nodes			x	xc
Indet.fruit stone/nutshell frags.			x	
Indet.moss	x			x
Indet.seeds	x	x	x	x xc
Indet.seed capsule lid	x		x	
Animal macrofossils				
Bone	x			
Eggshell				xx
Fish bone	x	xx	x	xx
Marine mollusc shell frags.	x			x
Ostracods	x	x		
Small mammal/amphibian bones	x	x		x xb
Waterlogged arthropods	xx	x	x	x
Other materials				
Black porous 'cokey' material				x
Black tarry material	x			
Burnt/fired clay				x
Compacted organic concretions			xxx	
Mineralised concretions		xxx		
Mortar/plaster				x
Vivianite concretions	x			
Vitrified material	x			
Sample volume (litres)	10	10	8	10
Volume of flot (litres)	0.1	0.2	0.2	0.3
% flot sorted	100%	50%	50%	50%

Table 1. Plant macrofossils and other remains from the Bar Ditch fills, South End, Boston, Lincolnshire

Appendix 6

Imported Medieval Pottery from Site BSE01 Assessment Report

by Alan Vince

Imported Medieval Pottery from Site BSE01

Alan Vince (updated 23/05/05)

Eighty-six sherds of imported medieval pottery were found on the BSE01 site in Boston and were submitted for assessment. The pottery came from about 56 separate vessels and ranged in date from the 12th to the 15th centuries. The absence of Raeren stoneware certainly indicates cessation of activity before the end of the 15th century.

The Pottery

Dating

The majority of the sherds come from stratified assemblages, dated both by the imported wares themselves and by local wares found with them. The earliest stratified piece appears to come from a late 12th/early 13th-century context in Trench 3. Thirty-eight pieces (from 24 vessels) came from deposits dated between the middle of the 13th and the middle of the 14th centuries. These were present in all trenches except Trench 3. Finally, forty-six sherds (from thirty vessels) were found, distributed across all trenches except for Trench 8. The imported wares are therefore fairly evenly spread across the site, suggesting that there are high medieval and late medieval deposits over the majority of the site.

In several cases the character of the pottery allowed a much closer dating, to within a third of a century. For small assemblages this precision may be misleading since the assemblages in those instances are being given the date range of individual types, rather than deposition dates. For the larger assemblages, however, the dates are more certain and it is therefore fairly clear that deposits containing assemblages datable to within 30 years on internal evidence are present.

French wares

A body sherd of a North French mottled-green glazed jug was found in Trench 3 ([1317]). Such vessels were made at a number of centres. Those commonly exported to the British Isles were mainly produced in the Seine valley and it is possible to distinguish sources through chemical analysis of the fabric. However, since only one piece is present, and comes from a period not well-represented on the site there would be little gain in knowledge from further study.

Mottled-green glazed wares from southwest France form a larger collection (SAIM). 13 sherds from 7 vessels. The types present span the mid 13th to 15th centuries. They include a baluster jug, typical of the earliest southwestern French wares found in England (ie mid 13th to mid 14th century), a jug with a bridge spout, of similar date, and sherds from two pegaux, a squat three-handled form. Chemical analysis has demonstrated two compositions within southwestern French medieval whitewares. The first is that of the polychrome or all-over-green glazed vessels produced in la Chapelle des Pots near Saintes and the second can only be ascribed to the south-west of France. The latter vessels were probably exported from both Bordeaux and La Rochelle and it is quite likely that different sources were

supplying either port. The vessels come from both high and late medieval contexts and thus cover the period of the 100 years war.

Rhenish wares

Rhenish wares form the largest single group of imports from the site. The types present span the 12th/13th to the 15th centuries. They include two sherds of Paffrath or Blue-grey ware (BLGR). One of these is a flat-bottomed vessel, and highly unusual if indeed from the middle Rhine valley. These vessels were unglazed and made by hand. The standard forms were round-bottomed cooking pots and small ladles of similar shape with large horizontal handles. A single sherd of Pingsdorf-type ware (PING) was found. This is a light-bodied semi-stoneware often decorated with red paint (as appears to be the case here). Such vessels were first produced in the 11th century but continued to be produced into the late 12th/early 13th century, which is the likely date of this example.

Early stonewares, vitrified vessels containing a significant amount of iron (to reduced the fluxing point) were found (EGSW). Five sherds were found, coming from perhaps just two vessels, one of which has roulette decoration. There are a number of potential sources for these vessels. They date to a period (mid/late 13th century) before the overwhelming dominance of the Siegburg industry during which the rural potteries of the Vorgebirge were still in operation, as were urban kilns in Bruhl.

The majority of the Rhenish sherds are of Siegburg stoneware (33 sherds from 24 vessels). They range in date from the ?late 12th/early 13th century (Trenches 1 and 6) to the 15th century. The earliest pieces are rarely found in the British Isles, although found in quantities in the Low Countries, for example in Amsterdam. There are also a number of sherds of early 14th-century Siegburg ware. This is a full stoneware but tempered with a quartz sand, unlikely the classic mid-14th-century and later fabric which is untempered. Eight sherds from five vessels were found, all jugs. One vessel with this early fabric from Trench 6 appears to be salt-glazed, which is highly unusual. However, the vessel comes from a late medieval context whereas the remainder are from earlier levels. It may be, therefore, that it is not an early Siegburg ware but some other type. Classic untempered Siegburg ware was represented by 22 sherds from 17 vessels. They include a variety of forms, all broadly paralleled in print. They include biconical jugs (2), *jacobakanne* (4), large and small jugs (1 each), a bowl and *Trichterhalskrug* beakers (2) in addition to vessels whose precise form cannot be determined. These forms are assigned different date ranges, from the mid 14th century to the early 15th century, and it is likely that they represent continuous importation.

Meuse valley wares

Fifteen sherds of Langerwehe stoneware, from six different vessels, were found. They all come from late medieval contexts and can all be assigned to one of the jug types recognised by John Hurst: a type I jug (1), a large type I jug (1), large jugs (2), a small/medium jug (1), and a large ribbed jug.

Langerwehe stoneware was produced in the Meuse valley, near Aachen, and probably exported separately from the Rhenish wares (although it is also possible that some was carried overland to

AVAC

Cologne and then sent downriver to the British Isles). Recent chemical analysis carried out at the British Museum Department of Scientific Research has shown that it is possible to distinguish Langerwehe products from those made in the nearby, but later, industry at Raeren. One of these Boston vessels, from Trench 4, appears to have a salt glaze, more typical of Raeren. The remainder are more typical, having a brown iron-rich wash which has caused the surface of the vessel to vitrify.

Low Countries wares

Nine sherds (representing 7 vessels) of glazed red earthenware of Low Countries type (DUTR) were found. They include cooking pots (2) and frying pans of two different sizes (2 each) and a sherd from a frying pan or dripping dish. They were found in both high and late medieval deposits. A single sherd of highly-decorated glazed red earthenware (AARD) was also found. Such vessels were produced in Flanders (eg Bruges) and the Netherlands and it is likely that the Boston vessel could be characterised through chemical analysis.

Five sherds (3 vessels) of unglazed wheelthrown greyware are tentatively identified as Low Countries products. One is definitely from a jug, with a thumbed base, one from a jar and the other uncertain. All three come from high medieval contexts. This is a contrast with London, where such vessels were only identified in late medieval deposits. This, however, may be due to the presence in London of local unglazed wheelthrown greywares, making it more difficult to identify these imports. These local wares are much less common in the late medieval deposits. Chemical analysis of unglazed greywares from Jarrow has led to the suggestion that they were from Flanders

Assessment

The potential of the unexcavated archaeological strata

It is quite clear that archaeological deposits of exceptional quality survive on this site. Work on the Thames waterfront in London has shown that such deposits contain a wealth of information on many aspects of medieval town life, including pottery trade. To maximise the information gleaned from such deposits much larger assemblages than those produced in these trenches would be required, and this can only be achieved in controlled excavation, not by salvage recording during a watching brief. Any further groundwork on this site should therefore be preceded by full excavation and finds recovery from any archaeological deposits that are disturbed. Particular care should be taken to find deposits associated with preserved timber which can be dated by dendrochronology and to recover potentially datable metal finds through sieving and the use of metal detectors.

The potential of the excavated collection

The excavated imported vessels can aid the study of medieval trade into Boston and place that trade in an international context. In almost every case the archaeological context of the finds can be dated and the finds give a reasonable coverage of the high medieval (1250-1350) and late medieval (1350-1450)

AVAC

periods. The late medieval period is usually not well represented on recent excavations in Boston and it is certainly quite rare to find apparently uncontaminated closed assemblages of this date.

The finds must be catalogued in sufficient detail and with reference to standard typologies so that other workers can recognise the types found.

Where appropriate, the vessels should be illustrated, or related to published types. In most cases the forms of these imported types have been adequately illustrated in print and reference to published sources should be sufficient.

A few sherds would repay petrological examination (see appendix one for method statement). These are:

- the BLGR sherds, neither of which is a typical example of the ware, or forms (2 sections)
- The EGSW vessels (3 sections)
- The LCGR vessels (3 sections).

In addition, samples of several types would repay chemical analysis, using Inductively-Coupled Plasma Spectroscopy (ICPS):

- The AARD jug, for comparison with data from the Bruges kiln (1 sample)
- A sample of DUTR vessels, for comparison with the AARD and Bruges samples and for comparison with DUTR vessels of later date from Pescod Square, Boston (7 samples).
- The EGSW vessels, for comparison with known middle Rhine imports (3 samples).
- The LANG vessels, for comparison with the published BM data from a Langerwehe kilnsite (6 samples).
- The LCGR vessels (3 samples)
- The NFREM sherd (1 sample)
- The SAIM vessels (8 samples)

It should be emphasised that this amount of scientific work is exceptional, but only because the material itself is exceptional and because no similar work has ever taken place on these types from Boston.

AVAC

Costing

Task	Comments	Amount
Illustration	A maximum of eleven sherds, estimated at £20 per sherd. For consistency with other import drawings these would be undertaken by Nick Griffiths.	£220 plus VAT
Petrological analysis	Eight thin-sections to be produced by Dept of Earth Sciences, University of Manchester. Analysed by Alan Vince.	£184 plus VAT
Chemical analysis	Twenty-nine samples. To be prepared in Lincoln, analysed at Royal Holloway College London with statistical analysis of results and comparanda by Alan Vince	£667 plus VAT
Catalogue and report for publication	Fifty-six separate vessels, each to be described typologically and under the binocular microscope	£184 plus VAT
Grand total		£1255 plus VAT

Table 1. List of Samples

REFNO	Action	Trench	Context	Cname	Form	Part	Description	Nosh	NoV	Weight
	TS;ICPS	4	411	LCGREY jar ?		BS	? ID	1	1	2
	TS;ICPS	6	666	EGSW JUG		BS		3	1	85
	TS;ICPS	8	847	LCGREY JUG		BS	fine grey fabric oxid core	3	1	29
	TS;ICPS	6	666	EGSW JUG		neck	? Sv as one with 3 sherds	1	1	5
	TS;ICPS	6	666	EGSW JUG		neck		1	1	5
	TS;ICPS	4	442	LCGREY ?		BS	fine reduced ? ID	1	1	3
	TS	4	441	BLGR	ladle	BS	? ID	1	1	2
	TS	6	670	BLGR	small jug ?	base	semi vitrified;sandy fabric ? ID	1	1	18
	ICPS	2	200	SAIM	JUG	BS	no glaze	1	1	4
	ICPS	6	661	LANG	JUG	rim	collared rim;TYPE I	1	1	7
vessel 7	ICPS	4	414	LANG	large jug	base	frilled base fe wash;int salt glaze	2	1	259

AVAC

REFNO	Action	Trench	Context	Cname	Form	Part	Description	Nosh	NoV	Weight
	ICPS	8	841	SAIM	pegau	rim		4	1	12
	ICPS	1	129	SAIC	JUG	BS	discoloured glaze;? ID	1	1	5
	ICPS	3	330	SAIM	pegau	BS		2	1	15
vessel 7	ICPS	4	410	LANG	large ribbed jug	BS	part fe wash	8	1	98
	ICPS	2	201	DUTR	frying pan	profile	soot ext & part int	2	1	167
	ICPS	6	661	DUTR	large frying pan	handle		1	1	231
	ICPS	7	714	DUTR	frying pan ?	BS		2	1	34
	ICPS	1	123	DUTR	small cooking pot	BS		1	1	14
	ICPS	6	666	SAIM	JUG	rim	bridge spouted	1	1	12
	ICPS	6	666	SAIM	JUG	rim & BS		3	1	19
	ICPS	4	410	SAIM	JUG	BS		1	1	1
	ICPS	3	1317	NFREM	JUG	BS	cu mottled glaze;cream fabric;fabric further	1	1	4
	ICPS	6	670	LANG	small/med jug	base	frilled base;fe wash	1	1	165
	ICPS	8	843	SAIM	baluster jug	BS		1	1	4
vessel 7	ICPS	4	415	LANG	large jug	BS		1	1	3
	ICPS	2	203	DUTR	large frying pan/dri	handle		1	1	56
	ICPS	2	203	DUTR	large frying pan	rim with handle	soot	1	1	204
	ICPS	4	402	LANG	large type l jug	BS	ash glaze;Hurst fig91-272	2	1	28
	ICPS	6	661	AARD	JUG	BS	cu glaze over white slip	1	1	1
	ICPS	1	122	DUTR	cookpot	BS		1	1	45

Appendix 7

**The Imported Medieval Pottery from South End/Skirbeck Road,
Boston (BSE01) Final Report**

by Alan Vince

The Imported Medieval Pottery from South End/Skirbeck Road, Boston (BSE01)

Alan Vince

Archaeological fieldwork at South End, Skirbeck Road, Boston by APS Ltd revealed a number of deposits of later medieval date, probably relating to refuse dumping on the site. These deposits include a small quantity of 13th-century and earlier pottery but are mainly composed of late 14th and early 15th-century material with no examples of Raeren stoneware, which, given the high frequency of imported pottery in the collection, dates the end of deposition to the 1480s or earlier.

The pottery therefore provides a useful snapshot of the character of the late medieval pottery used in Boston.

Catalogue

French wares

From the late 12th century onwards, finely-potted glazed jugs made in fine-textured white clays were imported to the British Isles. These vessels were made from Tertiary deltaic clays which outcrop in small patches around the French coast, from the Pyrenean foothills in the south to Flanders in the north, where they give way to Tertiary marine clays.

Numerous production sites exploiting these clays existed in the medieval period but in general only two of these were producing pottery for export: the Saintonge region north of the Gironde in the southwest and the Lower Seine valley, around Rouen, in the north. In terms of exports to eastern England, the lower Seine industry is more important up to the mid 13th century, after which the Saintonge region takes over. This broadly reflects English interests in France, although it seems that the importation of pottery from Normandy continued well after the conquest of Normandy by Phillip II of France in 1204. However, there are clearly also a number of minor centres whose products arrived in the British Isles, either at items of trade or in the personal belongings of travellers, sailors and merchants.

Because of the widespread outcrop of the parent clay, the lack of coarse sand or gravel inclusions which might reflect local geology and the basic similarity of the products it is difficult to attribute every sherd of French medieval Whiteware to a source. As part of a long-term study of the French medieval Whiteware export industry, samples were taken from

The Alan Vince Archaeology Consultancy, 25 West Parade, Lincoln, LN1 1NW

<http://www.postex.demon.co.uk/index.html>

A copy of this report is archived online at
<http://www.avac.uklinux/potcat/pdfs/avac2005111.pdf>

each of the eight French medieval Whiteware vessels present in the collection. Visually, these were assigned to four groups:

- NFREM – North French Monochrome. Mottled green-glazed vessels were produced alongside the distinctive polychrome vessels in the lower Seine valley, but usually have too few typological or fabric characteristics to enable them to be assigned to a source.
- SAIM – Southwestern French Mottled Green Glazed. From the middle of the 13th century until the 16th century, vessels with a mottled green glaze and fine white body were imported to the British Isles. Unlike those from the Lower Seine Valley and other northern sources these vessels have a wheelthrown strap handle and their forms clearly show that they are related to the Saintonge Polychrome and All-Over-Green wares, produced at La Chapelle Des Pots. However, it has been doubted whether all of the vessels of this type found in the British Isles were made at La Chapelle Des Pots and it is possible that they are a regional type produced at several centres. Visually, however, their fabric, appearance and typological features are remarkably uniform.
- Saintonge Sgraffito ware. A single sherd with a red-brown slip under a clear glaze was found. It may come from a sgraffito-decorated vessel, a rare product of La Chapelle Des Pots. An example of this type was found at Southampton associated with Saintonge Polychrome vessels. However, sherds of sgraffito-decorated vessels have been found in archaeological contexts which pre-date the introduction of the polychrome and all-over-green vessels and these too may be a regional type made at several centres.
- Saintonge Unglazed ware. During the later medieval period and extending into the 16th century, vessels with either no glaze or spouts of copper-green glaze became the norm. Unless a complete vessel is present it is impossible to demonstrate that sherds do not come from partially-glazed vessels but it is still useful to distinguish unglazed from glazed sherds, since their ratio is a rough indicator of date. It is likely that the single sherd of this type from the site comes from the same source as the mottled-glazed vessels.

The sherds all come from jugs but in three cases a more precise form can be identified. That from context 843 comes from a tall, thin form, a baluster jug. This form is particularly common in the 13th century, pre-dating the Saintonge polychrome ware. The vessels from contexts 330 and 841 are pegaux, a squat, rounded form with a parrot beak. Some examples have a bucket handle (especially in the 16th century) whilst others have three wide strap handles. The wide everted rims of these vessels suggest they may have had lids, and since no ceramic lids in this ware are known they must have been made of wood. The pegau form seems to have been produced from the 13th century onwards but is more common on sites in the British Isles in the later 14th to 16th centuries.

One of the sherds has faint scratches which might possibly be a "merchant's mark". Southwestern French wares, including definite Saintonge vessels, often have these post-firing marks which are assumed to be related to their trade rather than marks of ownership, since they do not occur on other similar vessels.

Table 1

Context	Code	Form	Sherds	TSNO	Comments	Part	Wt
1317	NFREM	jug	1	V3161		BS	4
410	SAIM	jug	1	V3162		BS	1
330	SAIM	pegau	2	V3166	POSSIBLE MERCHANTS MARK/GRAFFITI	BS	15
666	SAIM	jug	1	V3165		BS	4
843	SAIM	baluster jug	1	V3163		BS	4
666	SAIM	jug	2	V3164		rim & BS	15
666	SAIM	jug	1	V3167	BRIDGE SPOUT OR HANDLE SCAR	rim	12
841	SAIM	pegau	4	V3168		rim	12
129	SAISG	jug	1	V3169	PLAIN REDUCED GLAZE OVER RED SLIP	BS	5
200	SAIU	jug	1	V3170		BS	4

Chemical Analysis

The data obtained from ICPS from the French wares from Boston were compared with a range of data from other medieval French whitewares. Factor analysis clearly showed that the Boston samples were dissimilar to those from the Seine valley and Paris Basin. The analysis was therefore repeated, omitting these wares. This analysis showed that the Boston samples are all similar to other Southwestern French wares and distinct from wares from sites in the Loire valley and Poitiers (Fig 1). Within the Southwestern French group the unglazed and mottled glazed samples are more similar to each other, and to samples from Dublin and Ardglass (Northern Ireland) than they are to the sgraffito-decorated sherd, which is more similar to a group of sherds from Dublin, including a green-painted vessel and a sgraffito-decorated vessel. However, there is no clear separation of "Saintonge" from "Southwestern French" wares and the analysis suggests that all of the samples are actually from La Chapelle des Pots.

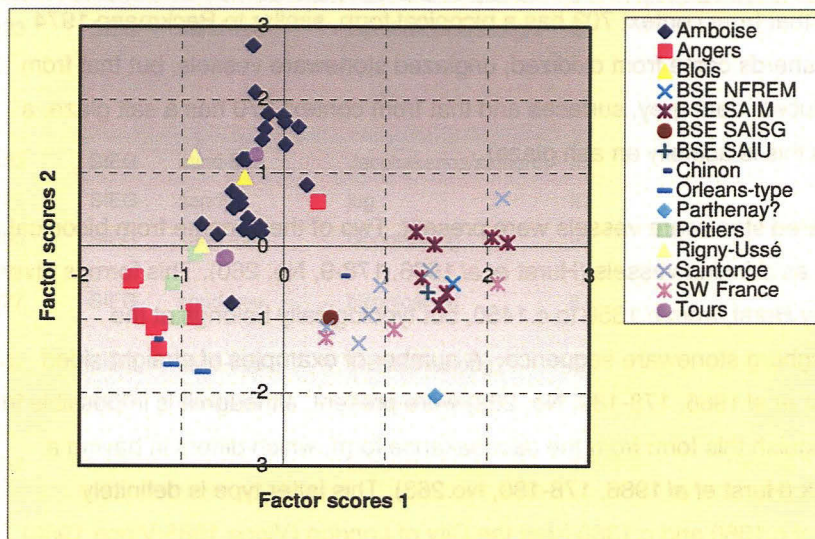


Figure 1

Rhenish wares

High-fired earthenwares and stonewares from the middle Rhine valley usually make up the largest group in late medieval import assemblages from eastern England and this Boston collection is no exception. By the late medieval period pottery production for export was concentrated in a single area: Siegburg, on the east bank of the Rhine.

A few sherds cannot be assigned to a known production source by eye and these have been selected for analysis. The earliest Rhenish types present are a possible sherd of Pingsdorf ware (code PING) and two possible sherds of blue-grey Paffrath ware (code BLGR). None of these are typical pieces and alternative identifications have been investigated using thin section and chemical analysis (Table 2).

A small group of sherds have been classified by eye simply as Early German Stoneware (Code EGSW). However, these too might be Siegburg wares, but dating to the earlier phases of production before the use of the typical fine light-firing clay, which was initially used after tempering with a well-sorted fine quartz sand, but which from the late 14th century was used without any temper. These EGS sherds probably came from tall jugs with a collar rim (Beckmann 1974, Nos. 56-76).

Typical Siegburg wares are of types which span the early/mid 14th century to the early 15th century. Seven sherds of sand-tempered Siegburg stoneware were present. This type is datable to the early to mid 14th centuries. Most of the sherds can simply be identified as jugs, without any further typological details. However, that from context 659 has a collar rim, an

early feature, whilst that from context 703 has a biconical form, similar to Beckmann 1974 No.92. Most of the sherds come from oxidized, unglazed stoneware vessels, but that from context 118 has reduced, dark grey, surfaces and that from context 670 has a salt glaze, a later feature (unless this is actually an ash glaze).

Seventeen untempered stoneware vessels were present. Two of these come from biconical jugs, probably used as drinking vessels (Hurst *et al* 1986, 178-9, No. 260). This form is given a wide date range by Hurst, from c.1350 to c.1450, but typologically belongs at the beginning of the Siegburg stoneware sequence. A number of examples of straight-sided jugs (similar to Hurst *et al* 1986, 178-180, No. 262) were present, although it is impossible in most cases to distinguish this form from the *Jacobakanne* form, which differs in having a slightly bulbous neck (Hurst *et al* 1986, 178-180, No.263). This latter type is definitely present in deposits of c.1360 and c.1380 from the City of London (Vince 1985; Vince 1988) and is absent from groups dated by coins to the first few decades of the 15th century. Examples are known from Denmark where they occur as coin hoard containers dated c.1400 (Liebgott 1978, 78-87). It has been suggested that the narrow rim is more suitable for wine- than beer-drinking, in which case it may be that the straight-sided and *Jacobakanne* forms are contemporary but used for different functions (Gaimster 1997, 169-170 summarises the dating arguments for this form). Examples of flaring-necked beakers and jugs (*Trichterhalsbecher* and *Trichterhalskrug*, actually probably best thought of as handled beakers) occur in one context, 402. These vessels appear in the early 15th century (Vince 1985; Vince 1988; Hurst *et al*, 178-267; Gaimster 1997, 170-174) but since they sometimes occur with dated applied medallions of late 16th-century date the type was clearly current throughout the 15th and early 16th centuries.

A single example of a shallow bowl was present, in context 714. This form is usually found in association with flaring-necked beakers and drinking jugs and like them sometimes has applied stamped medallions. Gaimster presents the evidence, mainly from contemporary art works, that these vessels were used for drinking (Gaimster 1997, 168-9). The type has a wide date range, from the early 15th to the mid/late 16th century.

Table 2

Context	cname	subfabric	Form	Action	TSNO	Description	Part	Weight
118	SIEG	Sandy	jug	ID		REDUCED SURFACES AND MARGINS	BS	28
122	SIEG	sand-free	Jacobakanne	ID		RIBBED BODY	BS	19
122	SIEG	sand-free	Jacobakanne/straight	ID		CORDON ON SHOULDER; RIBBED NECK AND BODY; HANDLE JOIN	BS	36
123	SIEG	sand-free	Jacobakanne	ID		late 14th+	BS	20
123	SIEG	sand-free	Jacobakanne/straight	ID		mid14th+	handle	16

AVAC Report 2005/111

123	SIEG	sand-free	Jacobakanne/straight	ID		CORDON ON SHOULDER;RIBBED NECK AND BODY;HANDLE JOIN	BS	39
123	SIEG	sand-free	Jacobakanne/straight	ID		mid14th+	handle	26
129	SIEG	sandy	jug	ID			BS	9
200	SIEG	sand-free	biconical jug	ID		ribbed neck; globular body; mid 14th+	neck	23
327	SIEG	sand-free	biconical jug	ID		mid 14th+;Hurst fig85-260	BS	19
402	SIEG	sand-free	Trichterhalskrug?	ID		frilled base	BS	236
402	SIEG	sand-free	Trichterhalskrug?			oxid fabric	handle & BS	70
402	LANG		large type I jug	ID;ICPS	V3156	ash glaze; Hurst fig91-272;ROULETTED CORDON	BS	28
410	SIEG	sand-free	Jacobakanne	ID		handle scar	BS	10
410	LANG		LARGE JUG	ID		BROWN WASH EXT AND SALT GLAZED INT AND EXT;KT INT;THUMBED FRILL BASE	BS	98
414	SIEG	sand-free	Jacobakanne	ID		NECK/SHOULDER	BS	10
414	SIEG	sand-free	large jug	ID			BS	4
414	LANG		LARGE JUG	ID		BROWN WASH EXT AND SALT GLAZED INT AND EXT;KT INT;THUMBED FRILL BASE	base	259
415	LANG		LARGE JUG	ID;ICPS	V3154	BROWN WASH EXT AND SALT GLAZED INT AND EXT;KT INT;THUMBED FRILL BASE	BS	3
424	SIEG	sand-free	biconical/straight	ID		ribbed neck	BS	9
429	SIEG	sandy	jug	ID		early 14th;CYLINDRICAL RIBBED NECK	BS	10
441	BLGR		ladle	ID;TS;ICPS	V3143		BS	2
442	PING	YELLOW CORE WITH DKBR/GREY SURFACES (PROBABLY REDUCED FIRING NOT SLIP);YELLOW AND FE CLAY PELLETS	SJ/PTCH	ID;TS;ICPS	V3160	KT INT	BS	3
611	SIEG	sand-free	small jug	ID		PROBABLY FROM A JAKOBKANNE	handle	24
659	SIEG	sandy	jug	ID;DR		COLLARED RIM;HANDLE	rim	91
661	LANG		type I jug	ID;ICPS	V3155	COLLARED RIM;BROWN WASH INT AND EXT;HANDLE JOIN	rim	7
666	EGSW		jug	ID;TS;ICPS	V3151		BS	85

666	EGSW		jug	ID;TS;ICPS	V3153	CORDON ON SHOULDER WITH DIAMOND RS BELOW	neck	5
666	EGSW		jug	ID;TS;ICPS	V3152	RIBBED	neck	5
670	BLGR		Small jug?	ID;TS;ICPS;DR	V3144	Semi vitrified; sandy fabric? ID	base	18
670	SIEG	sandy	jug	ID		salt glaze	BS	15
670	LANG		small/med jug	ID;ICPS	V3157	frilled basify wash	base	165
703	SIEG	sandy	BICONIC JUG	ID;DR		CF BECKMANN 1974, NO.92	R	18
714	SIEG	sand-free	small bowl	ID		Hurst Fig88-257	rim	32
840	SIEG	sandy	jug	DR		late 13/early 14th	rim & BS	25
847	SIEG	sandy	jug	ID		squatter form:e14th;RIBBED BODY	BS	2

Thin Section Analysis

The possible sherd of Pingsdorf ware was examined in thin section (V360) and the following inclusions noted:

- Quartz. Sparse angular and subangular grains up to 0.5mm across. Mostly monocrystalline and unstrained.
- Clay/Iron. Moderate subangular and rounded grains up to 0.4mm across. The grains are dark brown to opaque and contain sparse angular quartz inclusions up to 0.1mm across.
- Sandstone. A single subangular sandstone fragment consisting of well-sorted angular grains c.0.15mm across in a red cement. The fragment is 0.4mm long.
- Siltstone/slate. A single fragment 1.0mm long and 0.2mm wide composed of angular quartz grains up to 0.05mm across in a dark brown groundmass.

The groundmass consists of isotropic light brown baked clay minerals, streaks and pellets of lighter-coloured clay and abundant angular quartz grains and moderate dark brown clay/iron grains up to 0.1mm across.

These characteristics are inconsistent with those observed in samples of Pingsdorf ware from the City of London (Vince and Jenner 1991, REDP) and from Lincoln (Young & Vince forthcoming) but are similar to those of Andenne-type ware (ANDE), produced in the Meuse valley, which was exported to England between the 11th to 13th centuries. Earthenwares were also produced alongside stonewares in the late medieval period at Aachen (W Giertz pers comm). However, given the size of the sherd and the lack of typological features it is impossible at present to identify it.

Two samples of Paffrath ware were examined in thin section (V3143-4). The two samples have a similar fabric and the following inclusions were noted:

- Quartz. Abundant, well-sorted grains c.0.3mm across. The grains are mainly subangular monocrystalline and unstrained. Some grains appear to have been well-rounded and then cracked and rounded
- Chert. Sparse, rounded grains c.0.4mm across.

The groundmass consists of anisotropic off-white clay with few inclusions.

These characteristics are consistent with an origin in the Vorgebirge area of the Rhine valley.

Three samples of Early German Stoneware were examined in thin section (V3151-3). All have a similar fabric and the following inclusions were noted:

- Quartz. Abundant, moderately well-sorted grains ranging from c.0.2mm to 1.00mm across. The grains include polycrystalline and strained examples but are mostly monocrystalline and unstrained. Some unstrained mosaic quartz grains are also present, indicative of high-grade metamorphic origin.
- Clay/iron. Sparse rounded opaque slag inclusions, formed *in situ* through the firing of clay/iron grains, up to 0.5mm across.

The groundmass consists of isotropic off-white baked clay minerals and abundant angular quartz grains up to 0.05mm across.

There are no features in these three sections which discount a Rhenish source and the three samples certainly all come from the same source. One possible source would be Siegburg, which was producing red-slipped, sandy vessels in the later 12th and early 13th centuries.

Chemical Analysis

The ICPS data from the Rhenish and Meuse valley wares from Boston were analysed using factor analysis and compared with a small collection of samples of supposed Rhenish origin (Fig 2). This analysis shows that the supposed sherd of Pingsdorf ware from Boston is similar, but not identical, to samples of Walberburg and Badorf wares, made in the same area but in the 7th/8th and 8th/9th centuries respectively. The two samples of supposed Paffrath ware (BLGR in Fig 2) are more similar to the Langewehe samples than to the Rhenish wares. However, more comparative samples are required before we can securely say that they are not Rhenish products.

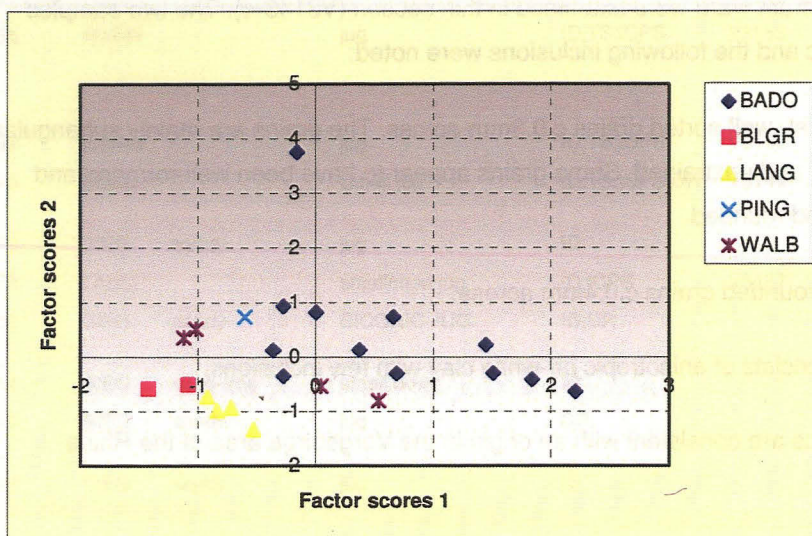


Figure 2

Meuse valley wares

Fifteen sherds of Langerwehe stoneware, from six different vessels, were found. They all come from late medieval contexts and can all be assigned to one of the jug types recognised by John Hurst: a type I jug (1), a large type I jug (1), large jugs (2), a small/medium jug (1), and a large ribbed jug (Hurst *et al* 1986, 184-190). Langerwehe stoneware was produced in the Meuse valley, near Aachen, and probably exported separately from the Rhenish wares (although it is also possible that some was carried overland to Cologne and then sent downriver to the British Isles). Recent chemical analysis carried out at the British Museum Department of Scientific Research has shown that it is possible to distinguish Langerwehe products from those made in the nearby, but later, industry at Raeren. By eye, it is not possible to reliably distinguish Langerwehe and Raeren fabrics, nor the recently-discovered early 15th-century salt-glazed stoneware waste from Aachen (Wolfram Giertz pers comm). One of these Boston vessels, a large jug with a thumbed base, sherds of which occur in contexts 410, 414 and 415, appears to have a salt glaze, more typical of Raeren, but associated with an iron wash. The remainder are more typical, having a brown iron-rich wash which has caused the surface of the vessel to vitrify but without a salt glaze.

Table 3

Context	cname	Form	Action	TSNO	Description	Part	Weight
402	LANG	large type I jug	ID;ICPS	V3156	ASH GLAZE; HURST 1986. FIG 91 -272;ROULETTED CORDON	BS	28
410	LANG	LARGE JUG	ID		BROWN WASH EXT AND SALT GLAZED INT AND EXT;KT INT;THUMBED FRILL BASE	BS	98
414	LANG	LARGE JUG	ID		BROWN WASH EXT AND SALT GLAZED INT AND EXT;KT INT;THUMBED FRILL BASE	base	259

415	LANG	LARGE JUG	ID;ICPS	V3154	BROWN WASH EXT AND SALT GLAZED INT AND EXT;KT INT;THUMBED FRILL BASE	BS	3
661	LANG	type I jug	ID;ICPS	V3155	COLLARED RIM;BROWN WASH INT AND EXT;HANDLE JOIN	rim	7
670	LANG	small/med jug	ID;ICPS	V3157	FRILLED BASE;IRON WASH	base	165

Low Countries wares

A single sherd of highly-decorated glazed red earthenware (AARD) was also found. Such vessels were produced in Flanders (eg Bruges) and the Netherlands in the later 13th and early 14th centuries and a sample has been taken for chemical analysis for comparison with material from Flemish production and consumer sites (Bruges, Ypres and Aardenburg).

Nine sherds (representing 7 vessels) of glazed red earthenware of Low Countries type (DUTR) were found. They include cooking pots (2) and frying pans of two different sizes (2 each) and a sherd from a frying pan or dripping dish. Such vessels are particularly common on eastern English sites in the later 14th, 15th and early 16th centuries, although at the younger end of this date range it becomes difficult to distinguish the imported vessels from locally-made copies, some of which were probably made by immigrant potters. Earlier on, the vessels can normally be distinguished from English lead-glazed red earthenwares, because they were biscuit fired before glazing, so that the body is completely oxidized. The vessels have few typological features, and in any case it does not seem that there is much variation in the typology of these vessels, either as a result of differences in source or date.

Five sherds (3 vessels) of unglazed wheelthrown greyware are tentatively identified as Low Countries products. One is definitely from a jug, with a base decorated with wide thumb impressions, one from a jar and the other uncertain. Samples of two of these vessels have been taken for analysis, for comparison with vessels of known or suspected Low Countries provenance.

Table 4

Context	cname	Form	Action	TSNO	Description	Part	Weight
122	DUTR	Cooking pot	ID;ICPS	V3145	OVAL-SECTIONED FOOT	BS	45
123	DUTR	Small cooking pot	ID;ICPS	V3146		BS	14
201	DUTR	Frying pan			SOOTED EXT	profile	167
203	DUTR	Large frying pan/dripping dish	ID;ICPS	V3147		handle	56
203	DUTR	Large frying pan	ID;ICPS	V3148	SOOTED EXT	rim with handle	204
411	LCGR	Jar?				BS	2
442	LCGR	?	ID;TS;ICPS	V3159		BS	3

661	DUTR	Large frying pan	ID;ICPS	V3149		handle	231
661	AARD	Jug	ID;ICPS	V3142	COPPER-STAINED GLAZE OVER WHITE SLIP	BS	1
714	DUTR	Frying pan?	ID;ICPS	V3150		BS	34
847	LCGR	Jug	ID;TS;ICPS	V3158	THUMBING AROUND BASE	BS	29

Thin Section Analysis

Two samples of Low Countries Greyware were examined in thin section (V3158-9).

Both have a similar fabric and the following inclusions were noted:

- Quartz. Abundant subangular and rounded grains ranging from c.0.1mm to 0.3mm across. Mostly monocrystalline, unstrained grains but sparse mosaic quartz grains are present.
- Feldspar. Sparse altered feldspar fragments ranging up to 0.3mm across.
- Chert. Sparse rounded grains up to 0.5mm across.

The groundmass consists of anisotropic baked clay minerals, sparse rounded dark brown/opaque grains up to 0.1mm across, sparse muscovite laths up to 0.1mm long and moderate angular quartz up to 0.1mm across.

The thin sections confirm that the two samples probably come from the same source but the range and character of the inclusions does not suggest a source, nor even which side of the North Sea the fabric came from.

Chemical Analysis

The ICPS data from the Boston Low Countries wares was compared with a range of other medieval and post-medieval samples of Netherlandish or Belgian origin. These include samples of highly-decorated ware from a kiln site at Bruges and from consumer sites at Ypres and Aardenburg in Belgium; samples of post-medieval glazed red earthenware from Gateshead which visually look somewhat different from the standard medieval Dutch Red Earthenware; a sample of a medieval wheelthrown unglazed greyware from Gateshead which was analysed by Dr Chenery of the BGS for Derek Hall, SUAT, as part of a project looking at the source of such wares around the North Sea (coded here Gateshead Flem); and samples of Low Countries Greyware from Scarborough, Jarrow and Hartlepool. The results of this analysis show that the Gateshead "Flemish Greyware" is different in composition from the remainder, and that the remainder all have a similar composition (Fig 3). Within this cluster, however, the Boston samples (the highly-decorated sherd, the

unglazed greywares and the plain glazed red earthenwares) all plot in the bottom right hand corner of the graph, alongside some of the Low Countries Greyware whilst the Flemish glazed wares (AARD) and the Gateshead Dutch Red Earthenware-type samples plot towards the centre (i.e. they have lower F3 score and high F4 scores). The Low Countries Greyware samples which are most similar to Boston come from Hartlepool and Scarborough whilst those more similar to the Flemish comparanda come from Newcastle and Jarrow.

The analysis therefore suggests that there may be two or more sources of Low Countries Greyware found on east coast English port sites and that the examples from Boston are likely to come from the same source as the glazed red earthenwares, including the highly-decorated sample. Samples of glazed red earthenwares from sources in the Netherlands are required to take this further.

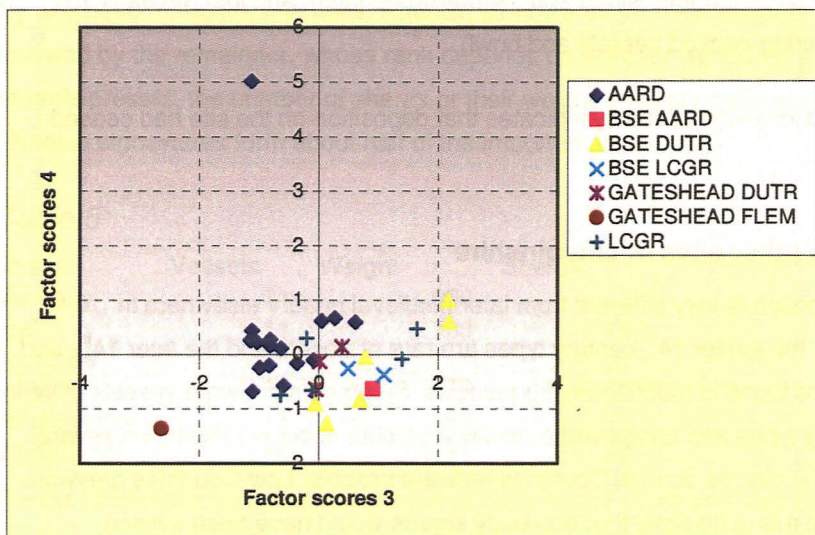


Figure 3

Discussion

The South End medieval pottery assemblage is remarkable in the context of Boston in that the pottery does not include a large proportion of 13th-century and earlier wares and although by no means a large collection it is nevertheless the largest and best collection of later medieval pottery from the town. It is a great shame that no full excavation was carried out on the site, in which case it is quite possible that it might have turned out, regionally, to be as important as the Thames waterfront assemblages have turned out to be (Milne & Milne 1982; Cowgill, de Neergaard & Griffiths 1987; Grew & de Neergaard 1988; Egan & Pritchard 1991; Vince 1985).

Chronology

From the imported pottery, we can say that the collection contains no Saintonge Polychrome or All-over-Green vessels. These occur at sites up and down the east coast and given the high proportion of imports on the South End site their absence is probably significant. It seems that the Saintonge Polychrome industry probably only lasted a single generation, somewhere around c.1300AD. Therefore, it is likely that most of the pottery at South End is of 14th-century or later date.

Only the Rhenish and Meuse valley stonewares can be dated with any precision, the remaining imported types being of long-lived wares where there is little or no typological or fabric progression. The stonewares indicate activity starting in the early to mid 14th century (Siegburg sandy fabric; Siegburg biconical jugs); continuing through the later 14th centuries (Siegburg sand-free fabric Straight-sided and Jacobakanne jugs), and into the early 15th century (Siegburg flaring-necked vessels and bowl).

The lack of Raeren stoneware probably indicates that deposition on the site had ceased before c.1480AD.

Comparison with other sites in Lincolnshire

The South End collection is very different from later medieval pottery elsewhere in Lincolnshire. There, the earlier 14th-century types are rare or absent and the later 14th- and 15th-century ones are found in much lower frequencies. Siegburg stoneware vessels of later 14th and 15th-century types and Langerwehe stonewares both occur in Lincoln, on several sites in all parts of the city, as do Low Countries redware vessels. Low Countries greyware vessels are rare, but it is quite likely that odd body sherds would have been missed alongside residual Romano-British greywares (forthcoming). Therefore, it seems that only a limited subset of the imports found at South End were the subject of inland trade from Boston: later 14th- and 15th-century Siegburg stoneware; Langerwehe stoneware and Low Countries Redware. The remainder presumably arrived in Boston as incidental cargo, either as personal belongings of travellers or souvenirs obtained by sailors or perhaps as the result of private enterprise by the ship's crew who sold the goods locally in Boston but lacked access to the inland trade network.

In the countryside around Boston late medieval imported pottery is uncommon (pers comm J Young). However, several of the wares found at South End have also been found on other sites in the county recorded in the past few years by Jane Young (which we take to be a reasonably representative sample of the medieval pottery in the county). Of these, the most common is Low Countries Red Earthenware, which has been noted on urban sites in Lincoln and Boston but is also present at Stickney, Grimsby, Crowland, Fiskerton, and Whitton. Siegburg stoneware is the next most common, and in addition to being found on other sites

in Boston, and at the towns of Lincoln and Spalding, has been found on a site at Fleet. Langerwehe stoneware has been found at other sites in Boston and Lincoln at on sites at Kirton and Stickney whilst Saintonge ware has only been noted on other sites in Boston. It is remarkably uncommon in Lincoln ({Young & Vince forthcoming #44553}). Low Countries Greyware has only been recorded on another site in Boston. There is, however, a change in distribution during the 16th century and later 16th-century Frechen stoneware, for example, is found on numerous rural sites in the county. It may be that some of the Low Countries Redware vessels noted here are actually of 16th-century date (although any with white slip trailed decoration have been noted separately).

Comparison with other Ports

Roughly speaking, the imported pottery at South End can be divided as shown in Table 5. By whichever measure one uses, Rhenish stonewares form the majority of the imports, followed by the remainder, whose rank depends on whether we look at the number of vessels present, the number of sherds or their weight. In every method of quantification, the Rhenish stonewares form about half of the imported assemblage.

Table 5

Source	Vessels	Weight	Sherds
Germany	31	909	41
Low Countries	11	786	15
France	10	76	15
Meuse valley	6	560	15
Grand Total	58	2331	86

Similar finds occur in most of the medieval ports on the south and east coasts of the British Isles but it is difficult to find quantified data for comparison. Excavations in medieval Southampton have produced a large collection of late medieval pottery. That from the excavations of Colin Platt has been published but it is difficult to extract quantified data (Platt & Coleman-Smith 1975). However, the pottery from a series of more recent excavations has been analysed by Duncan Brown, who demonstrates that the late medieval period is a period of relative decline in the importation of pottery, and that this reflects the documented history of the port. In total, Brown catalogued 4975 sherds of late medieval type from nine separate excavations, although his late medieval grouping extends to the mid 16th century, which obviously affects comparison with Boston (2002). The pottery was quantified by sherd count and weight and the average proportion of imports to local and non-local English imports across those nine sites was 53% by weight and 54% by sherd count. There was, however, considerable variation between sites, ranging between 24% and 82% by weight and 25% and 87% by sherd count.

Within the late medieval import assemblage, some types can definitely be assigned solely to the 16th century whilst the remainder could date to either the late 14th/15th or the 16th

centuries (Table 6, based on Brown 2002, Table 5). The relative frequency by source area reflects the location of Southampton on the south coast and its traditional links with Normandy and the Iberian Peninsula. Low Countries are the most common late medieval import (measured by sherd count) and most of these are the same red earthenwares as are found at Boston. However, wares from the Iberian peninsula are the next most common type, a group completely absent from South End and uncommon in Lincolnshire in general. Within the French wares, Saintonge Whiteware is the most common but closely followed by Normandy wares, absent from Boston (52% of all French imports come from the southwest of France compared with 47% from Normandy). Italian wares are the next most important group at Southampton, again one that is not represented at all in the Boston assemblage whilst the Siegburg and Langerwehe stonewares form a very small proportion of the late medieval assemblage (but not that in the late 15th./16th century the proportion of Meuse valley wares at Southampton rises to over 40%, as a result of the Raeren stoneware industry).

Table 6

Source	14/15	16	Grand Total
Low Countries	41.22%	5.39%	28.69%
Iberian	30.20%	3.91%	21.01%
French	14.91%	38.15%	23.04%
Italian	9.91%	7.64%	9.12%
Rhineland	3.22%	4.50%	3.67%
Meuse valley	0.54%	40.40%	14.48%

Moving to the east coast, the late medieval pottery of the City of London has been studied in some detail, and the South End site is similar in date to the finds from the Thames waterfront (Vince 1985). Although numerous late medieval deposits have been excavated in the city, often closely datable through associated finds and dendrochronology, only the data from Trig Lane is available in print. There, four dumps were excavated: G7, dated to the early to mid 14th century; G10, dated c.1360; G11, dated c.1380 and G15, dated to the early/mid 15th century. The pottery was quantified by sherd count, weight and EVEs but only the EVE counts are published. The overall frequency of imports is low: 3% in G7; 4% in G10; 8% in G11 and 7% in G15. Given the range of contemporary frequencies seen in the Southampton data no credence should be put upon the apparent doubling in import frequency in the late 14th century. Table 7 shows the composition of the import groups by EVES and here there does appear to be significant patterning: French wares (almost all Southwestern French) decline sharply between c.1360 and c.1380 and do not recover; Spanish wares are too infrequent to quantify; German wares (which in this data includes both Siegburg and Langewehe stonewares) is constant; and the Low Countries wares (mostly red earthenware but with some greyware) rise sharply between c.1360 and c.1380.

Table 7

Ware	G7	G10	G11	G15
------	----	-----	-----	-----

French	40%	73%	7%	5%
Spanish	0%	0%	0%	13%
German	42%	27%	36%	34%
Low Countries	18%	0%	57%	48%

It is quite likely that these figures are inaccurate because of the small size of the import assemblage at Trig Lane and may also only reflect the areas of the city whose rubbish ended up in the Trig Lane dumps but this general pattern, of southwestern French wares being more common in the earlier part of the later medieval period, and the Low Countries wares being more common later, was repeated on other sites in the City.

Finally, we can obtain some data from Hull, where several excavations have taken place in the old town, dating from the 1270s onwards. One of these, 33 Lowgate/12 Bishop Lane, produced two late medieval phases, in which the 114 sherds of pottery from the earlier phase contained little or no Low Countries red earthenware in contrast to the later phase which produced 89 sherds in total, of which 16 were Low Countries red earthenware. Imports form 23% by sherd count of the earlier assemblage and 45% of the later one. French wares (including one sgraffito sherd) form the largest group within the imports, and all other import types were represented by five or less sherds in total. However, these include five Portuguese vessels (Iberian Red Micaceous ware), a type which is not common at the other sites discussed here.

Table 8

Broad source	B	C	Grand Total
England	88	49	137
France	22	18	40
Spain/Portugal	2	3	5
Meuse Valley	1	2	3
Germany	1	1	2
Low Countries		16	16

The contrast in overall frequency of imported pottery and the composition of the import assemblages at these different sites are informative. They indicate that at sites where the port was dominant in the settlement's economy, imported pottery is present as a high proportion of the pottery used in the town but in London, despite the likelihood that its overseas trade outstripped that of the other settlements examined, the overall size of the population and the more varied economic base, lead to a much smaller frequency of imported pottery.

One might imagine that the relative proportion of wares from different sources would reflect the distance of those sources from the port under consideration. This is not borne out by the data presented. Portuguese vessels ought, by that reckoning, be most common at

Southampton and least common at Hull, whereas in fact they were only present in quantity at Hull. Similarly, the port closest to the Low Countries would either be Boston or London, and yet it is Southampton which has the highest proportion of Low Countries imports in the late medieval period. The possible explanations for these patterns are varied. Firstly, none of the collections used in the comparison is large and in most cases they come from specific sites rather than, as at Southampton, reflecting possible variation within the settlement. However, it is the writer's impression that the groups used in the study are typical of the settlements concerned (based on the accumulation of data from other, smaller or unquantifiable site assemblages). Most likely, these patterns reflect complex trade patterns, in which, for example, ships carried out a triangular trade, taking goods from A to B, B to C and then C to A, rather than a simple cross-channel port-to-port trade. We cannot even say for certain that these goods came directly from a foreign port. A study of the port book evidence for the trade in pottery imports along the south coast by John Allan shows that the Rhenish stonewares, which occur in high numbers on sites in southern England, were in the main redistributed from London and do not indicate the presence of foreign ships in southern ports at all (Allan 1984 #12713). It may be, therefore, that we will find out more about the mechanics of seaborne trade at Boston by a study which combines a study of the documentary sources with a comparative study of pottery found on sites throughout Boston, and at other East Coast ports and their hinterlands.

Bibliography

- Allan, J P (1984) *Medieval and Post-Medieval Finds from Exeter, 1971-1980*. Exeter Archaeol Rep 3 Exeter City Council & University of Exeter.
- Beckmann, B. (1974) "The main types of the first four production periods of Siegburg pottery." in V. I. H. H. Evison and J. G. Hurst, eds., *Medieval Pottery from Excavations: Studies presented to Gerald Clough Dunning, with a bibliography of his works*, John Baker, London, 183-220.
- Brown, Duncan H (2002) *Pottery in Medieval Southampton c.1066-1510*. CBA Research Report 133 York, CBA.
- Cowgill, J de Neergaard M and Griffiths, N (1987) *Knives and Scabbards*. Medieval Finds from Excavations in London 1 London, HMSO.
- Egan, Geoff and Pritchard, Frances (1991) *Dress Accessories: c.1150-c.1450*. Medieval Finds from Excavations in London 3 London, HMSO.
- Gaimster, David (1997) *German Stoneware 1200-1900*. London, British Museums Publ Ltd.
- Grew, F and de Neergaard, M (1988) *Shoes and Pattens*. Medieval Finds from Excavations in London 2 London, HMSO.

- Hurst, John G, Neal, David S and van Beuningen, H J E (1986) *Pottery Produced and Traded in North-West Europe 1350-1650*. Rotterdam Papers VI Rotterdam, Museum Boymans-van Beuningen.
- Liebgt, N.-K. (1978) *Danske fund af møntdateret keramik ca. 950-1450*, National Museum, Copenhagen
- Milne, C and Milne, G (1982) *Medieval Waterfront Development at Trig Lane, London*. London Middlesex Archaeol Soc Spec Pap 5 London, London Middlesex Archaeol Soc.
- Platt, C and Coleman-Smith, R (1975) *Excavations in Medieval Southampton, 1953-69 Vol. 2 The finds*. Leicester, Leicester University Press.
- Vince, A. G. (1985) "The Saxon and Medieval Pottery of London: A Review." *Medieval Archaeol*, XXIX, 25-93.
- Vince, A. G. (1988) "The date and frequency of German imports in the City of London." in D. R. M. R. M. Gaimster and H.-H. Wegner, eds., *Zur keramik des Mittelalters und der beginnenden Neuzeit in Rheinland - Medieval and later pottery from the Rhineland and its markets*, Brit Archaeol Rep S440 ??-??
- Vince, A. G. and Jenner, M. A. (1991) "The Saxon and Early Medieval Pottery of London." in A. G. Vince, ed., *Aspects of Saxo-Norman London: 2, Finds and Environmental Evidence*, London Middlesex Archaeol Soc Spec Pap 12 London Middlesex Archaeol Soc, London, 19-119.
- Young, Jane and Vince, Alan (forthcoming) *A Corpus of Anglo-Saxon and Medieval Pottery from Lincoln*. Lincoln Archaeological Reports Oxford, Oxbow.

Appendix 1

TSNO	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO
V3142	13.9486	5.8976	1.3095	0.5044	0.3589	2.5317	0.7178	0.2037	0.02231
V3143	20.855	2.7742	0.9021	0.4947	0.2328	2.7742	0.8924	0.1067	0.01552
V3144	19.7104	3.0749	0.8148	0.4656	0.1649	1.9594	0.9797	0.0873	0.02037
V3145	15.1417	6.1304	1.067	0.3007	0.3783	2.6578	0.6887	0.1843	0.01358
V3146	17.0429	5.7909	1.2901	0.2619	0.3783	2.9488	0.7566	0.0679	0.01261
V3147	11.1938	4.0352	0.9797	0.4656	0.5141	2.1728	0.4656	0.1067	0.01164
V3148	12.7555	5.0925	1.358	0.8827	0.4656	2.2601	0.6693	0.0873	0.0291
V3149	10.9998	3.783	1.0379	0.8245	0.582	2.0273	0.5238	0.0582	0.02425
V3150	15.2581	5.5193	1.1058	1.2901	0.388	2.7645	0.7275	0.6111	0.01746
V3151	20.1857	1.7654	0.4559	0.291	0.291	2.2407	1.3095	0.1067	0.01261
V3152	20.7095	2.6966	0.4656	0.3201	0.3104	2.2116	1.4259	0.1261	0.02037
V3153	19.9917	1.5811	0.4462	0.2619	0.2813	2.1922	1.3095	0.097	0.01455
V3154	18.4106	1.3386	0.5626	0.4074	0.2037	1.7751	1.5811	0.0873	0.00388
V3155	19.7783	2.037	0.6693	0.3686	0.1552	1.7654	1.1737	0.0679	0.00582
V3156	18.3524	1.3871	0.5917	0.3686	0.2037	1.7363	1.649	0.0776	0.00388
V3157	20.8162	2.425	0.5141	0.3492	0.1455	1.4065	1.3968	0.0873	0.01358
V3158	14.3463	5.0149	1.3774	0.388	0.4268	2.6869	0.7178	0.0679	0.01455
V3159	12.8913	4.6463	1.2028	0.4074	0.4365	2.3862	0.6305	0.097	0.02037
V3160	19.9529	4.1128	0.5141	0.4947	0.2037	1.6587	1.7363	0.0873	0.01261
V3161	19.5261	2.5511	0.6596	0.388	0.3007	2.8421	0.9215	0.1746	0.01746
V3162	18.4979	2.5802	0.6499	0.4365	0.3007	2.9197	0.9215	0.194	0.02037
V3163	21.2236	3.0555	0.8342	0.5044	0.3298	3.3756	0.97	0.2813	0.02328
V3164	20.3797	2.134	0.6111	0.3104	0.2813	2.9585	0.9506	0.1067	0.0097
V3165	19.0896	1.8818	0.582	0.2813	0.291	2.6966	0.9118	0.0679	0.00873
V3166	20.6222	2.328	0.6208	0.4074	0.3007	3.0749	0.9797	0.1164	0.01261
V3167	21.0684	2.2601	0.6499	0.4171	0.3104	2.9391	1.0088	0.1358	0.01067
V3168	21.0684	2.5317	0.7081	0.4171	0.2813	3.1622	0.9409	0.1552	0.02328
V3169	21.4467	2.1631	0.4074	0.3686	0.2813	1.6199	1.0961	0.0485	0.00485
V3170	20.7095	2.134	0.6111	0.388	0.2716	3.007	0.9603	0.1843	0.01843

Appendix 2

TSNO	Ba	Cr	Cu	Li	Ni	Sc	Sr	V	Y	Zr*	La	Ce	Nd	Sm	Eu	Dy	Yb	Pb	Zn	Co
V3142	327.86	105.73	45.59	61.11	31.04	13.58	92.15	116.4	13.58	63.05	32.01	58.85	32.3689	4.63272	0.789192	2.425	1.746	5580.0414	77.6	17.46
V3143	356.96	123.19	24.25	118.34	36.86	16.49	115.43	152.29	12.61	55.29	41.71	68.453	41.57808	5.18174	1.039064	2.522	1.649	296.335	62.08	21.34
V3144	271.6	128.04	28.13	108.64	43.65	15.52	111.55	150.35	14.55	61.11	42.68	74.855	42.94578	5.09153	1.015008	3.007	1.649	128.6996	61.11	22.31
V3145	325.92	118.34	37.83	55.29	28.13	13.58	88.27	122.22	10.67	58.2	32.01	54.582	31.913	2.81688	0.576568	1.94	1.649	178.8583	63.05	15.52
V3146	328.83	130.95	26.19	79.54	39.77	15.52	86.33	144.53	13.58	67.9	33.95	63.118	34.10132	3.40373	0.797728	2.328	1.746	468.9271	81.48	16.49
V3147	265.78	74.69	13.58	33.95	24.25	9.7	68.87	82.45	9.7	47.53	23.28	44.979	23.43326	3.44544	0.550184	1.649	1.261	144.0062	49.47	15.52
V3148	300.7	86.33	21.34	55.29	52.38	13.58	93.12	106.7	21.34	63.05	32.98	73.788	34.46604	5.65025	1.1446	3.686	2.328	1152.2145	74.69	20.37
V3149	297.79	66.93	31.04	31.04	30.07	9.7	81.48	76.63	16.49	49.47	29.1	59.917	30.36294	3.6181	0.86136	3.201	1.746	160.6902	49.47	17.46
V3150	327.86	101.85	21.34	68.87	34.92	13.58	99.91	113.49	13.58	72.75	33.95	60.984	34.1925	4.35821	0.819456	2.425	1.843	303.8719	77.6	18.43
V3151	388.97	93.12	20.37	114.46	40.74	14.55	123.19	131.92	19.4	130.95	64.02	116.468	63.73482	8.39438	1.604768	3.783	2.134	144.7143	41.71	26.19
V3152	432.62	105.73	28.13	113.49	48.5	15.52	146.47	132.89	23.28	143.56	71.78	137.808	71.75866	10.05502	1.918272	4.559	2.425	150.9805	54.32	31.04
V3153	398.67	129.01	20.37	120.28	44.62	14.55	126.1	124.16	17.46	119.31	63.05	116.468	62.54948	9.90467	1.619512	3.492	1.843	118.7183	43.65	26.19
V3154	291	114.46	18.43	58.2	24.25	12.61	109.61	106.7	17.46	92.15	42.68	67.386	42.76342	4.15742	0.862912	2.813	2.037	130.9694	26.19	29.1
V3155	267.72	130.95	22.31	107.67	35.89	14.55	114.46	139.68	19.4	96.03	45.59	83.391	45.77236	5.0149	1.09804	3.104	2.134	101.4717	48.5	22.31
V3156	291	119.31	17.46	54.32	53.35	13.58	108.64	110.58	17.46	95.06	42.68	65.252	42.67224	4.53087	0.956032	2.716	2.037	97.0776	26.19	103.79
V3157	266.75	154.23	22.31	118.34	34.92	13.58	115.43	158.11	22.31	136.77	45.59	82.324	46.13708	6.4505	1.067	3.492	2.619	62.6038	44.62	20.37
V3158	310.4	105.73	16.49	56.26	32.01	13.58	84.39	125.13	10.67	58.2	31.04	50.314	30.91002	2.86053	0.665808	1.843	1.552	106.9037	60.14	19.4
V3159	300.7	96.03	15.52	39.77	31.04	11.64	77.6	110.58	11.64	57.23	26.19	48.18	26.53338	3.94111	0.695296	2.037	1.552	70.5287	61.11	19.4
V3160	345.32	186.24	28.13	86.33	56.26	19.4	158.11	158.11	9.7	111.55	59.17	89.793	57.53458	5.84716	1.028976	2.037	1.358	78.0171	51.41	24.25
V3161	502.46	111.55	28.13	55.29	25.22	16.49	106.7	139.68	22.31	45.59	65.96	120.736	66.5614	10.97167	1.929912	4.85	2.134	173.5039	52.38	13.58
V3162	511.19	104.76	67.9	53.35	31.04	16.49	102.82	124.16	29.1	44.62	72.75	162.349	74.40288	13.19394	2.412584	6.402	2.522	1654.7521	65.96	12.61
V3163	601.4	112.52	81.48	66.93	30.07	19.4	121.25	157.14	42.68	35.89	95.06	170.885	97.74496	19.74435	3.53856	8.924	3.492	1896.4664	79.54	10.67
V3164	524.77	109.61	39.77	54.32	23.28	17.46	103.79	150.35	36.86	36.86	89.24	170.885	91.45354	20.4088	3.41828	8.051	3.104	1295.9103	52.38	11.64
V3165	445.23	105.73	29.1	55.29	19.4	16.49	91.18	137.74	26.19	39.77	70.81	132.473	71.5763	13.50046	2.468456	5.335	2.231	602.6804	44.62	12.61
V3166	511.19	116.4	33.95	53.35	24.25	17.46	103.79	146.47	22.31	45.59	55.29	113.267	56.44042	11.6206	1.94776	4.753	2.231	535.1878	57.23	11.64
V3167	578.12	106.7	30.07	48.5	18.43	19.4	118.34	144.53	22.31	46.56	135.8	195.426	132.39336	12.02897	2.050192	5.044	2.134	450.3516	44.62	8.73
V3168	552.9	115.43	29.1	60.14	23.28	18.43	111.55	155.2	27.16	40.74	74.69	127.138	75.40586	12.33549	2.125464	5.529	2.522	454.2316	56.26	10.67
V3169	284.21	126.1	15.52	43.65	23.28	17.46	86.33	114.46	13.58	62.08	43.65	64.185	43.03696	5.17107	0.796952	2.134	1.455	939.8233	32.98	10.67
V3170	531.56	116.4	29.1	52.38	24.25	18.43	111.55	137.74	26.19	43.65	65.96	116.468	67.19966	12.4548	2.15728	5.529	2.425	172.3205	56.26	10.67

The Alan Vince Archaeology Consultancy, 25 West Parade, Lincoln, LN1 1NW

<http://www.postex.demon.co.uk/index.html>

A copy of this report is archived online at <http://www.avac.uklinux/potcat/pdfs/avac2005111.pdf>

Appendix 8

Glossary

Alluvium	Deposits laid down by water. Marine alluvium is deposited by the sea, and fresh water alluvium is laid down by rivers and in lakes.
Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> [004].
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Domesday Survey	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
Layer	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
Neolithic	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500-2250 BC.
Post hole	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany

Appendix 9

The Archive

The archive consists of:

16	Daily record sheets
6	Context register sheets
116	Context records
1	Plan record sheet
1	Section record sheet
18	Drawing sheets
2	Photographic record sheets
3	Level sheets
1	Sample record sheets
4	Environmental sample sheets
1	Stratigraphic matrix
1	Box of finds

All primary records and finds are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Lincolnshire City and County Museum
12 Friars Lane
Lincoln
LN2 1HQ

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Museum Accession Number: LCNCC: 2002.312

Archaeological Project Services Site Code: SEB02

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.